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ABSTRACT

The goals and program orientations of the National Science Foundation (NSF) Directorate for Science and Engineering Education are summarized in this publication. A listing is given of the projects supported by the Directorate in fiscal years 1983, 1984, and 1985. This compilation includes the name and location of the institution, the project director's name and department, the award amount and the grant number. Summaries are provided of the responsibilities, priorities, and accomplishments of each of the Directorate's major operating units. These divisions focus on: (1) materials development, research, and informal education (supporting projects which provide improvement model and materials, address recreational learning and expand the teaching knowledge base); (2) teacher preparation and enhancement (offering support for science and mathematics education networks, for excellence in teaching, and for teacher preparation and enhancement programs); (3) program assessment (providing data on the status of K-12 education in science, mathematics, and technology); (4) college science instrumentation (emphasizing undergraduate improvement projects); and (5) research career development (promoting career development for graduate students, young postdoctoral students, and junior faculty). (ML)

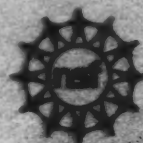
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DIRECTORY OF AWARDS

OCTOBER 1, 1983-
SEPTEMBER 30, 1985

Directorate for Science and
Engineering Education

National Science Foundation

February, 1986

ED0271289

SE046637

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The Foundation provides awards for science education and research in the sciences and engineering. The awardee is wholly responsible for the conduct of such activities and preparation of the results for publication. The Foundation therefore, does not assume responsibility for such findings or their interpretation.

The Foundation welcomes proposals on behalf of all qualified scientists and engineers and strongly encourages women and minorities to compete fully in these Programs.

In accordance with Federal statutes and regulations and NSF policies, no person on grounds of race, color, age, sex, national origin, or physical handicap shall be excluded from participation in, denied the benefits of, or be subject to discrimination under any program or activity receiving financial assistance from the National Science Foundation.

Other Publications of Interest:

Program Guidelines:

- Materials Development and Research (NSF 85-10)
- Program Announcement and Guide for Teacher Enhancement and Informal Science Education (NSF 85-9)
- College Science Instrumentation (NSF 85-34)
- Presidential Young Investigator Awards (NSF 85-24) [revised annually]

Program Solicitations:

- Materials for Elementary School Mathematics Instruction (NSF 85-60)
- Programs for Preparing Middle School Science and Mathematics Teachers (NSF 85-67)
- Programs for Elementary School Science Instruction (NSF 86-4)

Project/Award Directories:

- Directory of NSF-Supported Teacher Enhancement Projects (NSF 85-25)
- Division of Materials Development, Research and Informal Science Education "Program Award Booklets" [in preparation]
- College Science Instrumentation 1985 Awards [in preparation]
- Presidential Young Investigators 1985 Awards (NSF 85-17) [updated annually]

General Information:

- Grants for Scientific and Engineering Research (NSF 83-57)

These publications may be ordered from Forms and Publications, National Science Foundation, Washington, D.C. 20550.

We wish to acknowledge the invaluable assistance of Joanne Hazlett, Office of Information Systems, National Science Foundation, in developing the programming and format for the list of awards.

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FOREWORD

Science and Engineering Education programs are an integral part of the National Science Foundation. The future of the science and engineering enterprises in the United States depends on strong NSF leadership and programming in education at all levels.

The rebuilding of the NSF Directorate for Science and Engineering Education (SEE) began in earnest in mid-1984 and considerable progress has been achieved since. Our staff has increased from 39 people to 66 and the three divisions and two offices in SEE have been operating effectively for many months. This success is due, in part, to the tremendous support and encouragement we continue to receive from within NSF, but mostly from our work with a variety of individuals and groups across the country. Our ability to gear up and successfully meet the responsibility of NSF's national leadership role in science education reflects clearly the Agency's commitment to its mission as stated in the NSF Organic Act* and repeatedly reaffirmed. We are proud of our progress so far and each member of our staff is committed to excellence.

Our present thrusts at the secondary, middle, and elementary school levels are targeted and well received in all quarters. The program solicitations for Elementary School Science Materials, for K-6 Mathematics Instruction, and for Preparing Middle School Science and Mathematics Teachers have generated considerable interest in the field. Additional solicitations will be issued in the near future. Our program announcements continue to generate a very large number of high-quality proposals which cannot be all funded. Our aim of fostering collaboration among scientists, mathematicians, and educators to solve the nation's problems in science and mathematics education is being realized, as is our goal to establish meaningful partnerships among insti-

tutions of higher education, local and state agencies, and the private sector. Our grants are highly leveraged (in one program alone \$2 million of our funds are a part of a \$9 million effort).

At the collegiate level our current effort is very modest, but is slated to increase if the FY 1987 Budget Request is approved. The success of the College Science Instrumentation Program, established in 1985, is an indication of the critical role that NSF plays to assure excellence in undergraduate education in science, mathematics, and engineering. SEE's current involvement in engineering education is prior to the entry point. We are eager to move beyond the entry point; after all *engineering* is our middle name! The research career development programs at the pre-doctoral level and beyond are strong and effective. The graduate fellowships, post-doctoral fellowships, and Presidential Young Investigator Awards are administered and coordinated in SEE and reflect the wide concern the Directorate has in the quality of science education at all levels.

During the past three years the scope and focus of our activities have changed and there have been many requests for information. This publication responds to these requests and is the first volume of an annual series. It presents a listing of the projects supported by the Directorate in fiscal years 1983, 1984, and 1985 and provides a summary of the responsibilities, priorities and accomplishments of each of the Directorate's major operating units.

This information is intended to be of interest to policymakers in all sectors of the national science and engineering education enterprise as well as those who are members of the educational system. We hope that it also furnishes sufficient information to permit further contact with project personnel.

Bassam Z. Shakhashiri
Assistant Director for
Science and Engineering Education

* National Science Foundation Act of 1950, Public Law 81-507, as amended.

INTRODUCTION

The future of the Nation in an increasingly technological and competitive world marketplace is directly tied to the education of our population in science and mathematics. The discoveries, inventions and technical applications that can keep the U.S. economically and militarily secure require both well-trained scientists and engineers and a general population that understands the methods, capabilities, and limitations of science. From that general population come not only technicians and other users of the developments of science but legislators, journalists and others whose technical knowledge can contribute to our future in obvious ways.

The National Science Foundation (NSF) has an important education mission which can help to bridge the gap between practicing scientists and educators to ensure the best possible science and mathematics education for our citizens. The National Science Foundation Act of 1950 (as amended) authorizes and directs the Foundation to "initiate and support basic scientific research and programs to strengthen scientific research potential and science education programs at all levels. . . and engineering education programs at all levels. . .". Within NSF, the Directorate for Science and Engineering Education is responsible for defining and funding programs and projects that support this educational mission.

The educational effort in the United States is massive and diverse; our long tradition of local control of education requires that new approaches be clearly superior and effective to be adopted. Development, dissemination and eventual use in the classroom of any new materials and methods require long lead times and significant investments. We believe that a continuing and significant investment in science and mathematics education expresses the Nation's serious concern with our technical future and will draw the best, most creative people into the educational process as both educators and students.

The Directorate for Science and Engineering Education (SEE) has four major long-range goals:

- To help ensure that a high quality primary and secondary education in science and mathematics is available to every child in the United States. This background should provide a base for understanding by all citizens and be sufficient to enable those with the interest and talent to pursue technical careers, especially in science and engineering.
- To help ensure that those who select scientific and engineering careers have available the best possible professional education in their discipline. Research sponsored by other organizations within NSF is an impor-

tant part of professional education for scientists and engineers. SEE will concentrate its efforts on the educational structure; that is, the teachers, students, classroom materials and instructional equipment that remain important throughout undergraduate and graduate studies.

- To help ensure that opportunities are available at the college level for interested nonspecialists to broaden their science backgrounds. The great majority of students do not pursue technical careers and need a different kind of technical perspective to give them insights into, and knowledge of, the principles, practices, and limitations of science.
- To support science education outside the classroom to encourage and maintain public interest in, and awareness of, scientific and technological developments.

It is critical that we ensure the fullest possible participation of women, minorities and the handicapped in all programs and activities that support these goals.

Traditional strengths of the NSF approach—reliance on the expertise of scientists, engineers, and mathematicians to develop and carry out projects and on the peer review system to help select the very best projects—are a central part of our strategy in education. Collaboration among scientists and engineers and educators at all levels is encouraged as a way to develop the most creative and appropriate approaches to strengthening science and engineering education.

SEE also encourages collaboration among science educators and the private sector, which has an important stake in the technical expertise of both the general population and scientists and engineers. Of course, several groups have major interests in education: scientists, engineers, science educators, state and local education agencies, teachers and administrators, business and industry, professional organizations, civic groups, and so on. We encourage the development of partnerships among any and all of these groups as appropriate for each situation; such partnerships should take advantage of the diverse approaches and interests of the partnerships in both the development and execution of the project. These fusions of ideas and resources add breadth and strength to projects carried out by the partners and reflect a commitment of the community which is essential for long term improvement in science and mathematics education.

Another element in our strategy is to state objectives in ways that will take full advantage of the creativity and expertise of educators and scientists. *Program announcements* describe areas of general concern and interest to SEE

for response by interested parties; these attract original, creative solutions to broad-based problem areas such as materials development. *Program solicitations* describe high priority targets and opportunities and request specific proposals to address those sharply-defined needs. The Directorate has published three solicitations since November, 1985; they are "Materials for Elementary School Mathematics Instruction" (NSF 85-60), "Programs for Preparing Middle School Science and Mathematics Teachers" (NSF 85-67), and "Programs for Elementary School Science Instruction" (NSF 86-4).

SEE coordinates its activities closely with other organizations within NSF and with the U. S. Department of Education. Such coordination promotes the best use of the expertise in both agencies, to minimize program overlap, and to optimize the use of limited Federal resources. NSF

and the Department of Education have collaborated in supporting a number of projects, including the Second International Mathematics Study and the broadcast series "3-2-1 Contact," "The Voyage of the Mimi," and "The Brain."

In Fiscal Years 1983-1985 SEE funded a variety of activities across the Nation for a total expenditure of \$151 million, almost exclusively for graduate fellowships and support of secondary and elementary activities. The tables, following, show expenditures, authorizations and activity levels for units or program types by fiscal year. Chart I shows the administrative organization of the Directorate, depicting the funding program areas for those interested in further information. Following Chart I are lists of the current and past members of the Directorate Advisory Committee and of the current and past staff of the Directorate.

TABLE I

**Expenditures by Unit for Fiscal Years 1983 - 86
Directorate for Science and Engineering Education**

	1983	1984	1985	1986 ^a Planned
Materials Development, Research and Informal Science Education	\$160,000	18,421,533	22,719,126	24,602,250
Teacher Preparation and Enhancement	\$1,044,750	13,873,457	25,159,328	26,505,500
Studies and Program Assessment	—	1,809,084	1,761,161	2,114,000
College Science Instrumentation	—	—	4,996,379 ^b	5,263,500
Research Career Development	\$14,978,167	20,321,833	27,297,922	26,169,690
Total	\$16,182,917	54,425,907	81,933,916	84,654,940

^aReflects reductions required by the Gramm-Rudman-Hollings Act.

^bAn additional \$500,000 was provided by the Chemistry Division of the Directorate for Mathematics and Physical Sciences.

TABLE II

**Directorate for Science and Engineering Education
Appropriations by Program Type and Fiscal Year**

	(Dollars in Millions)			
	1983	1984	1985	1986 ^a
Graduate Fellowships	15.0	20.3	27.3	26.1
College Science Instrumentation ...	—	—	5.0	5.3
Secondary and Elementary Science and Mathematics Education	15.0 ^b	54.7 ^c	49.7	53.2 ^d
Total	30.0	75.0	82.0	84.6

a) Reflects reductions required by the Gramm-Rudman-Hollings Act.

b) 13.9 carried over to fiscal year 1984.

c) 31.5 carried over to fiscal year 1985.

d) 31.5 deferred from fiscal year 1985 plus 21.7 new obligational authority.

TABLE III

**Directorate for Science and Engineering Education
Activity by Unit, 1983**

	<i>Proposals Received</i>	<i>No. of Awards</i>	<i>Amount Requested</i>	<i>Amt. of Awards ^a</i>
Materials Development, Research and Informal Science Education	109	3	\$63,546	\$160
Teacher Preparation and Enhancement	162	107 ^b	\$12,983	\$1,044
Studies and Program Assessment	—	—	—	—
College Science Instrumentation	—	—	—	—
Research Career Development	3,830	1,390	N/A	\$14,978

^aIn thousands of dollars.

^bIncludes 104 Presidential Awards for Excellence in Science and Mathematics Teaching.

TABLE IV**Directorate for Science and Engineering Education****Activity by Unit, 1984**

	<i>Proposals Received</i>	<i>No. of Awards</i>	<i>Amount Requested</i>	<i>Amt. of Awards ^a</i>
Materials Development, Research and Informal Science Education	274	45	\$103,939	\$18,421
Teacher Preparation and Enhancement	597	214 ^b	\$145,891	\$13,873
Studies and Program Assessment	29	15	\$5,489	\$1,809
College Science Instrumentation	—	—	—	—
Research Career Development	4,449	1,510	N/A	\$20,322

^aIn thousands of dollars.^bIncludes 104 Presidential Awards for Excellence in Science and Mathematics Teaching.**TABLE V****Directorate for Science and Engineering Education****Activity by Unit, 1985**

	<i>Proposals Received</i>	<i>No. of Awards</i>	<i>Amount Requested</i>	<i>Amt. of Awards ^a</i>
Materials Development, Research and Informal Science Education	486	95	\$126,888	\$22,091
Teacher Preparation and Enhancement	623	264 ^b	\$267,765	\$25,015
Studies and Program Assessment	24	13	\$5,864	\$1,748
College Science Instrumentation	1,348	234	\$37,566	\$4,838
Research Career Development	5,002	1,560	N/A	\$27,298

^aIn thousands of dollars.^bIncludes 104 Presidential Awards for Excellence in Science and Mathematics Teaching.

CHART I

Current Organization of the Directorate for SEE

- Division of Materials Development, Research and Informal Science Education
 - Applications of Advanced Technologies
 - Informal Science Education
 - Instructional Materials Development
 - Research in Teaching and Learning
- Division of Teacher Preparation and Enhancement
 - Science and Mathematics Education Networks
 - Teacher Enhancement
 - Presidential Awards for Excellence in Science and Mathematics Teaching
 - Teacher Preparation
- Office of Studies and Program Assessment
- Office of College Science Instrumentation
- Division of Research Career Development
 - Graduate Fellowships
 - Minority Graduate Fellowships
 - Advanced Study Institute Travel Grants
 - NATO Postdoctoral Fellowships
 - Presidential Young Investigator Awards

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MATERIALS DEVELOPMENT, RESEARCH AND INFORMAL SCIENCE EDUCATION

Description of Activities

This division supports a wide range of projects designed to (1) expand the knowledge base about effective teaching and learning of mathematics, science, and technology, (2) provide models and materials resources to improve our elementary and secondary educational system in these fields; and (3) help provide a rich and stimulating environment for recreational learning, for a wide variety of audiences, in a cost-effective manner. The division accepts proposals submitted in response to general program announcements, and each year it also solicits proposals focused on a limited set of high-priority, targeted problem areas. To be considered for NSF support, projects must have the potential to be of use beyond the immediate locale where they are developed.

The division supports projects in four program areas:

- Applications of Advanced Technologies to provide for research and development on the creation, design and application of advanced technologies—particularly the computer—as educational and instructional tools for students and their teachers. Products may include prototypes of new hardware, software, systems, and languages.
- Instructional Materials Development to enable the most capable scientists and science educators to design, create and develop new or improved science and mathematics instructional materials for students and teachers that have the potential for widespread national use.
- Research in Teaching and Learning to undertake basic and applied research on significant factors essential to the effective teaching and learning of mathematics and science at all levels.
- Informal Science Education to support opportunities for education in mathematics, science, and technology in out-of-school settings, for example, through electronic and print media, museums and nature centers, and local continuing education organizations. These activities are needed to build upon, review and consolidate formal school exposure and can help develop societal support for improved education for our children. The specific objectives of this program are to:

Provide greater and mutually reinforcing opportunities for the public to make use of rich resources for scientific, mathematics, and technological learning outside formal educational systems.

Allow for increased interactions between the formal educational systems and the resources and staffs of museums, nature centers, zoos, and other such cultural institutions.

Encourage communications media to take a greater interest in imparting knowledge about mathematical, scientific, and technological concepts.

Encourage local membership groups to provide mathematics- and science-based activities for their members or groups served by them.

For More Information

In general, proposals may be submitted at any time. Although colleges and universities typically submit proposals, those from other institutions with an education mission will also be considered (see *Grants for Scientific and Engineering Research*, NSF 83-57, "Who May Submit" section.)

Detailed program descriptions, more explicit criteria and objectives, and information about preliminary inquiries can be found in the brochures *Materials Development and Research* (NSF 85-10) and *Program Announcement and Guide for Teacher Enhancement and Informal Science Education* (NSF 85-9). Two program solicitations are also available: *Materials for Elementary School Mathematics* (NSF 85-60) and *Programs for Elementary School Science Instruction* (NSF 86-4). These should be used in conjunction with publication 83-57, above. These publications may be ordered from Forms and Publications, National Science Foundation, Washington, D.C. 20550.

In addition, the Program Director of each of the four programs listed above has prepared a booklet containing a statement of program goals and brief descriptions of the projects supported during Fiscal Years 1984 and 1985. Requests for one or more of these "Program Award Booklets" should be sent to the Division of Materials Development, Research and Informal Science Education, Directorate for Science and Engineering Education, NSF, at the address above. Direct inquiries about specific projects—past, present or future—are welcomed by the Division.

TEACHER PREPARATION AND ENHANCEMENT

Description of Activities

Excellent teachers are at the core of good education at all levels. There is an urgent need to attract highly talented men and women to teaching careers in mathematics, science, and technology, to develop teacher capabilities in these critical areas, and to retain good teachers in the school systems. This means providing incentives, including greater public recognition of the profession and opportunities for teachers to play central roles in strengthening their profession. It is important to emphasize the vital contributions teachers make to the Nation.

This division also supports projects in four program areas:

- Science and Mathematics Education Networks
- Teacher Enhancement
- Presidential Awards for Excellence in Science and Mathematics Teaching
- Teacher Preparation

The near-term objective of these programs is to get more and better science and mathematics instruction into K-12 classrooms and laboratories. The literature on adult continuing professional development indicates that peer teaching, role modeling, and continuing reinforcement and support are critical factors in producing change. Thus these programs stress the recruitment of the best teachers to work with scientists, mathematicians, and educators to assist in the professional development of their colleagues. Beginning in 1985, the Foundation has focused especially on projects that will strengthen science and mathematics education for students at the elementary and middle (or junior high) school levels, the critical early years when concepts and attitudes are shaped for life.

Projects are preferred that are developed from the very beginning as cooperative and collaborative partnerships. These can include teachers, administrators, school boards, local and state education agencies, business and industry, colleges and universities, cultural institutions, and civic and professional organizations. Cost sharing among the partners is encouraged as a way to help assure continuation of worthwhile projects when the Foundation's involvement is over.

The overall characteristics of this division's programs include:

- Identifying, selecting, and recognizing teachers of mathematics, science and technology who have demonstrated excellent professional performance.
- Providing activities that enrich these teachers' experiences.
- Providing mentoring training for leadership and peer teaching.

- Extending the impact of these activities by encouraging participants to share new materials, methods, and information with their colleagues.
- Providing support and encouragement (through long-term, collegial relationships among teachers, scientists, educators, and others in the partnerships) as teachers use their new knowledge in their own teaching and pass on what they have learned to their colleagues.
- Providing in-service professional development opportunities that take advantage of both human and technological resources in effective and appropriate ways.
- Assessing and documenting the outcomes of projects and the conditions necessary to achieve them.
- Providing dissemination opportunities, including local and regional resource-sharing networks, that actively involve teachers in exchanging successful approaches, materials, and curricula used in their own teaching.
- Encouraging schools of education and other teacher preparation organizations to develop new methods of preparation for elementary and middle (or junior high) school teachers which will improve the quality and quantity of science and mathematics education in those early years.

Project activities vary in length according to the type of activity and the nature of the participants. Teacher enhancement projects generally include involvement of participants and project personnel during both summer and academic year periods.

For More Information

Detailed program descriptions, more explicit criteria and objectives, and information about preliminary inquiries for these programs can be found in the brochures *Program Announcement and Guide for Teacher Enhancement and Informal Science Education* (NSF 85-9) and *Materials Development and Research* (NSF 85-10). This division has also issued a program solicitation, *Programs for Preparing Middle School Science and Mathematics Teachers* (NSF 85-67).

These should be used in conjunction with the publication *Grants for Scientific and Engineering Research* (NSF 83-57). All are available from Forms and Publications, National Science Foundation, Washington, D.C. 20550. Direct inquiries are welcomed by the Division of Teacher Preparation and Enhancement, Directorate for Science and Engineering Education, NSF, at the same address.

In 1985, the Division published a *Directory of NSF-Supported Teacher Enhancement Projects* (NSF 85-25), describing projects funded for the Summer of 1985 and the 1985-86 academic year. A revised version for 1986 is in preparation.

STUDIES AND PROGRAM ASSESSMENT

Description of Activities

The Studies and Analysis Program was established in this office to help determine the status and condition of elementary and secondary education in science, mathematics, and technology in the U. S. The objective is to provide data to help with policy formulation and to support leadership efforts of the Foundation in science and engineering education.

Among the responsibilities of this office are to:

- Support the collection, analysis, evaluation, and dissemination of information on the status and condition of education in mathematics, science, and technology in the U. S. by means of a program of external grants and contracts and internal analysis and publications of major indicators;
- Establish and maintain data systems designed to monitor the status and progress of education in the U. S.;
- Determine through the design and implementation of

systematic program evaluation the impact and outcomes of past and present NSF support for science and engineering education.

- Conduct a study to respond to Public Law 98-371 which provides that "\$2,000,000 shall be made available for a contract to develop a science education plan and management structure for the Foundation."

Studies and Analysis projects were first funded in FY 84. During FY 84-85, 28 awards totaling \$3.7 million were made to support these objectives, exclusive of the congressionally-mandated study.

For More Information

All types of organizations, both nonprofit and profit making, are eligible to submit proposals at any time. Contact the Studies and Analysis Program by writing the Directorate for Science and Engineering Education, Office of Studies and Program Assessment, National Science Foundation, Washington, D.C. 20550.

COLLEGE SCIENCE INSTRUMENTATION

Description of Activities

Colleges in the United States make a vital contribution to the preparation of the Nation's future scientists and engineers, teachers, and leaders in business and government. The purpose of the College Science Instrumentation Program (CSIP) is to support excellence in science and engineering instruction at these institutions. Students in science and engineering courses—majors and non-majors alike—must have experience with suitable, up-to-date equipment to become involved in the work that is at the heart of scientific understanding and progress. Through the College Science Instrumentation Program, the National Science Foundation provides matching support for purchase of instructional equipment to be used to implement new or improved undergraduate programs in the sciences and engineering.

The specific objectives are to encourage and support:

- Introduction of modern instruments to improve the experiences of undergraduate students in science and engineering courses, laboratories, and field work;
- Interfacing of computers with scientific instrumentation and other appropriate uses of current technology in science and engineering instruction;

- Development of new instrumentation and new ways of using instrumentation to extend instructional capabilities; and
- Establishment of equipment-sharing capability via consortia or centers.

The strategy underlying the highly competitive nature of the College Science Instrumentation Program is to produce projects that:

- Set standards for instrumentation and its use against which other institutions measure themselves and for which they strive to achieve.
- Yield products such as laboratory manuals and scholarly publications, serving a common good as well as fostering local improvement.

The program supports well-focused projects that will result in a clear improvement in the quality of undergraduate education. This may be done by providing for:

- Acquisition of new, state-of-the-art instructional scientific equipment;
- Upgrading of existing equipment; or

- Replacement of non-functional or clearly obsolete equipment with apparatus that extends instructional capabilities.

Because the objective of the program is to improve the quality of instruction, projects based primarily on financial need or increased enrollments are not appropriate. Projects are expected to involve activities which go beyond the basic level of support from the institution necessary to ensure a viable program.

CSIP accepts proposals that request funds for instructional scientific equipment. A maximum of \$50,000 may be requested from NSF; grantee institutions must provide an equal or greater matching contribution. The minimum grant request to NSF for CSIP funds is \$5,000. Grants in support of CSIP activities are normally made for a 2-year period. It is expected that the requested equipment will be acquired during this time.

Presentation of the results of successful projects at a professional meeting or in an appropriate journal is encouraged in order that other institutions also may benefit from CSIP projects.

FY 1985 was the first year of operation of the CSIP program. During this year the program made 234 awards totaling about \$5.5 million from among 1348 proposals received. These awards ranged over all of the scientific, mathematical and engineering disciplines, and went to 191 institutions in 42 states and Puerto Rico.

In addition to the \$5 million budgeted to CSIP, the Chemistry Division of the Mathematics and Physical Sciences Directorate made available \$500,000 to support further instrumentation awards in chemistry.

For More Information

A more detailed program description can be found in the brochure *College Science Instrumentation* (NSF 85-34). Order from Forms and Publications, National Science Foundation, Washington D.C. 20550, or write the College Science Instrumentation Program, Directorate for Science and Engineering Education, NSF, Washington, D.C. 20550. The Office is currently preparing a more detailed listing of 1985 awards for publication later this year; copies may be requested at the above address.

RESEARCH CAREER DEVELOPMENT

Description of Activities

Assurance of a ready pool of highly qualified scientists and engineers is crucial in a nation whose security and economic well-being depend on science and technology. This Division promotes the career development of young scientists and engineers. A strong Federal role in ensuring this flow has nearly universal support.

For over 30 years NSF has led in developing and broadening the pool of students who embark on careers in science and engineering. The Division focuses on three target groups: beginning graduate students, young postdoctoral students seeking international study and research experience, and young faculty in areas of critical personnel shortages in industry and academia. The latter two activities are managed by Division of Research Career Development staff, but are funded from sources external to the Directorate for Science and Engineering Education.

At the Graduate Level

The Division supports graduate level training and education primarily through awarding fellowships, but also through Advanced Institute International Travel Grants.

- Since 1952 the Foundation has annually awarded Graduate Fellowships to the Nation's most talented graduate students in science and engineering. These

three-year awards provide recognition and support for the Fellows and insurance for the Nation that a wide variety of available talent will be in place to address the problems at the research frontiers of the future. Graduate Fellows who have received recognition for their later accomplishments include 9 Nobel Laureates, 5 Field Medalists and 6 Waterman Awardees.

Awardees of graduate research fellowships may attend graduate institutions of their choice. The awards carry stipends for the Fellows and allowances for their institutions in lieu of all required tuition and fees. The 12-month stipend has increased from \$6,900 in FY 1983 to \$8,100 in FY 1984 and to \$11,100 in FY 1985. Annual cost-of-education allowances have increased from \$4,000 in FY 1983, to \$4,900 in FY 1984 and to \$6,000 in FY 1985.

- The Minority Graduate Fellowship Program was added in FY 1978. This program receives 10% of graduate research fellowship resources, and is identical to Graduate Fellowships except that application is limited to members of ethnic minority groups underrepresented at the advanced levels of science and engineering.
- Since 1960 the Advanced Study Institutes International Travel Grants have assisted young scientists in further-

ing their research careers by providing travel grants enabling them to attend NATO Advanced Study Institutes held in Europe. The Institutes, conducted in a tutorial format by leading scientists and engineers, focus on state-of-the-art reviews of active research areas. The personal interaction with prominent researchers and other institute attendees frequently gives direction to emerging research careers and leads to opportunities for international exchanges. Transportation is furnished for travel of a U. S. Citizen to the institute and return. Travel awards were made to 62 applicants in FY 1983; to 70 in FY 1984; and to 145 in FY 1985. These individual grants are not listed in this Directory.

At the Postdoctoral and Junior Faculty Levels

The Division supports the training and research development of postdoctoral scientists primarily through two mechanisms:

- The Division, on behalf of the NSF, manages the United States component of the NATO Postdoctoral Fellowships in Science Program at the request of the Department of State. Since 1959 each NATO member country has received an allocation from NATO to be used by its own nationals in international study and research. The objective is to promote scientific understanding and cooperation among member countries. The U. S. allocation is used to support fellowships at the postdoctoral level for scientists and engineers within five years of their Ph.D.'s. Fellows must study outside the U. S. in a NATO country or neighboring country that cooperates with NATO.

NATO Postdoctoral Fellows receive a stipend of \$18,000 per year with small additional allowances for dependents, travel, and institutional costs. The level of this program is constant; approximately 50 awards were made in each year from FY 1983 through FY 1985.

- In 1983 the Administration initiated in the National Science Foundation a new program of Presidential Young Investigator Awards intended to improve the capability of universities to respond to the demand for highly qualified scientific and engineering personnel for academic and industrial research. The program is funded at the NSF by the respective research directorates and is coordinated by the staff of the Division of Research Career Development. These awards focus on the Nation's most promising young faculty or potential faculty, and seek to put into place the highest quality faculty members for training the next generation of professional scientists and engineers.

Each Presidential Young Investigator Award carries a base annual grant of \$25,000. In an effort to encourage closer university-industry interaction, NSF matches up to \$37,500 in industrial (or private, non-profit foundation) support on a dollar-for-dollar basis annually. The awards are renewable for a total of five years. In addition to Federal and extramural support, the awardees' institutions share by providing the investigators' academic-year salaries.

These awards are based on a national competition among individuals nominated by Ph.D.-granting institutions, with 200 awards made in both FY 1984 and FY 1985. Annually, the Division publishes a booklet listing the current awardees with a description of their research activities and summary information on previous recipients. Copies are available on request from the address below. These awards are not included in this Directory.

For More Information

Further information on programs and guidelines for application are available from the Division of Research Career Development, Directorate for Science and Engineering Education, National Science Foundation, Washington, D.C. 20550.

DIRECTORY OF **AWARDS**

NATIONAL SCIENCE FOUNDATION
 DIRECTORY OF AWARDS -- FISCAL YEARS 1983 - 1985
 DIRECTORATE FOR SCIENCE AND ENGINEERING EDUCATION

STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
ALABAMA			
Bradshaw H.S. Florence 35630 Presidential Award for Excellence in Science and Mathematics Teaching	Mary N. Gonce Science	5000	N/A 83
Central H.S. Tuscaloosa 35404 Presidential Award for Excellence in Science and Mathematics Teaching	Peggy M. Coulter Mathematics	5000	N/A 83
Auburn University Auburn 36849 Graduate Fellowship Support Grant		26000	8450032 84
Enterprise H.S. Enterprise 36330 Presidential Award for Excellence in Science and Mathematics Teaching	Wanda M. Motes Mathematics	5000	8470702 84
Escambia County H.S. Atmore 36502 Presidential Award for Excellence in Science and Mathematics Teaching	Jane D. Nall Science	5000	8470701 84
U of Ala at Birmingham Birmingham 35294 Graduate Fellowship Support Grant		13000	8450026 84
Auburn High School Auburn 36830 Presidential Award for Excellence in Science and Mathematics Teaching	Clara A. Clothiaux Mathematics	5000	8554485 85
Auburn University Auburn 36849 Graduate Fellowship Support Grant		38300	8550684 85
Birmingham Southern Col Birmingham 35204 Integration of Instrumental Analysis Throughout the Chemistry Curriculum	Thomas F. Moore Chemistry	15905	8551209 85

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Kinston High School Kinston 36453 Presidential Award for Excellence in Science and Mathematics Teaching	Charla S. Adkison Science	5000	8554484 85
Univ of South Alabama Mobile 36688 Undergraduate Laboratory Equipment to Study Heavy Metals Occurring in the Marine Environment	Wayne C. Isphording Geology & Geography	33250	8551977 85
University of Alabama University 35486 Graduate Fellowship Support Grant		7583	8503277 85
ALASKA			
Robert Service H.S. Anchorage 99502 Presidential Award for Excellence in Science and Mathematics Teaching	Mildred J. Heinrich Science	5000	N/A 83
Wendler Junior H.S. Anchorage 99507 Presidential Award for Excellence in Science and Mathematics Teaching	Sondra Dexter Science	5000	N/A 83
Romig Jr H.S. Anchorage 99503 Presidential Award for Excellence in Science and Mathematics Teaching	James A. Seitz Mathematics	5000	8470704 84
Univ of Alaska Anchorage Anchorage 99504 Graduate Fellowship Support Grant		13000	8450028 84
West Valley H.S. Fairbanks 99701 Presidential Award for Excellence in Science and Mathematics Teaching	Deborah Pomeroy Science	5000	8470703 84
Barrow High School Barrow 99723 Presidential Award for Excellence in Science and Mathematics Teaching	J. Irene Murphy Mathematics	5000	8554487 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Lathrop High School Fairbanks 99701 Presidential Award for Excellence in Science and Mathematics Teaching	Elaine M. Jacobson Science	5000	8554486 85
Sheldon Jackson College Sitka 99835 Field and Laboratory Instruments for Environmental Resource Studies in Biology, Chemistry and the Earth Sciences	David Turcott Chemistry	49000	8552316 85
Univ of Alaska Anchorage Anchorage 99504 Graduate Fellowship Support Grant		17100	8550680 85

ARIZONA

Townsend Junior H.S. Tucson 85716 Presidential Award for Excellence in Science and Mathematics Teaching	David T. Smith Science	5000	N/A 83
University H.S. Tucson 85711 Presidential Award for Excellence in Science and Mathematics Teaching	C. D. Bishop Mathematics	5000	N/A 83
University of Arizona Tucson 85721 Graduate Fellowship Support Grant		43600	8350003 83
Arizona State University Tempe 85287 Graduate Fellowship Support Grant		13000	8450029 84
Arizona State University Tempe 85287 Development of Reasoning in High School Science	Anton E. Lawson Zoology	18754	8320292 84
Arizona State University Tempe 85287 Portal School Teacher Training	Bill W. Tillery Physics	99659	8320293 84
Corona Del Sol H.S. Tempe 85284 Presidential Award for Excellence in Science and Mathematics Teaching	Wayne Williams Science	5000	8470705 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Granite Mountain Jr H.S. Prescott 86301 Presidential Award for Excellence in Science and Mathematics Teaching	Sherry Baca Mathematics	5000	8470706 84
Northern Ariz Univ Flagstaff 86003 Outdoor World Science - A Model Bicultural High School Science Program for American Indian Students	Gary G. Allen Office of Academic V.P.	261256	8316803 84
University of Arizona Tucson 85721 Graduate Fellowship Support Grant		117000	8450030 84
Arizona State University Tempe 85287 Graduate Fellowship Support Grant		34200	8550681 85
Arizona State University Tempe 85287 Elementary School Librarians: Partners for Excellence in Science Education	Karen Beyard-Tyler Ed Tech & Library Science	63767	8470028 85
Arizona State University Tempe 85287 A Microcomputer-Based Mathematics Program to Strengthen the Mathematics Competence of Pre-Service Teachers	Gary G. Bitter Elementary Education	228235	8470015 85
Kofa High School Yuma 85364 Presidential Award for Excellence in Science and Mathematics Teaching	JoAnne Dombrowski Science	5000	8554488 85
University of Arizona Tucson 85721 Graduate Fellowship Support Grant		171000	8550682 85
Westwood High School Mesa 85281 Presidential Award for Excellence in Science and Mathematics Teaching	Sandra A. Nagy Mathematics	5000	8554489 85

ARKANSAS

Forrest City M S Forrest City 72335 Presidential Award for Excellence in Science and Mathematics Teaching	Rudy B. Beede Mathematics	5000	N/A 83
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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Harrison H.S. Harrison 72601 Presidential Award for Excellence in Science and Mathematics Teaching	Jo Anne Rife Science	5000	N/A 83
Univ of Arkansas Fayetteville 72701 Graduate Fellowship Support Grant		10900	8350004 83
Fayetteville Sr H.S. Fayetteville 72701 Presidential Award for Excellence in Science and Mathematics Teaching	William A. Merrifield Science	5000	8470707 84
Southeast Middle School Pine Bluff 71601 Presidential Award for Excellence in Science and Mathematics Teaching	Linda F. Shibley Mathematics	5000	8470708 84
Univ of Arkansas Fayetteville 72701 Graduate Fellowship Support Grant		13000	8450031 84
Arkansas Senior H.S. Texarkana 75501 Presidential Award for Excellence in Science and Mathematics Teaching	William A. Dempsey Science	5000	8554490 85
Arkansas State University State Univ. 72467 Local and Regional Teacher Development Project for Secondary School Science Teachers	Robert E. Rowsey Curriculum & Teaching	150000	8470093 85
Bryant High School Bryant 75501 Presidential Award for Excellence in Science and Mathematics Teaching	Richard Galbraith Mathematics	5000	8554491 85
Hendrix College Conway 72032 Computer Interfacing of Laboratory Instrumentation	Richard L. Rolleigh Physics	14406	8551717 85
Ouachita Baptist Univ Arkadelphia 71923 Common Science: A Newspaper Column for Middle School Students and Their Parents	Joe S. Jeffers Chemistry & Biology	18194	8550408 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
South Arkansas Univ Magnolia 71753 High Pressure Liquid Chromatography Equipment for a New Course in Instrumental Analysis	L. W. Yarbrough Chemistry	8671	8551593 85
Univ of Central Arkansas Conway 72032 Instrumentation to Upgrade Undergraduate Cellular and Molecular Biology Laboratories	John S. Choinski, Jr. Biology	39108	8551073 85
CALIFORNIA			
Calif St U San Lu Obispo San Luis Obispo 93407 Graduate Fellowship Support Grant		10900	8350066 83
California H.S. Whittier 90601 Presidential Award for Excellence in Science and Mathematics Teaching	Clyde L. Corcoran Mathematics	5000	N/A 83
California Inst of Tech Pasadena 91125 Graduate Fellowship Support Grant		457800	8350009 83
Gunn H.S. Mill Valley 94941 Presidential Award for Excellence in Science and Mathematics Teaching	Arthur V. Farmer Science	5000	N/A 83
Stanford University Stanford 94305 Graduate Fellowship Support Grant		1863900	8350115 83
Univ of Cal Berkeley Berkeley 94720 Graduate Fellowship Support Grant		991271	8350010 83
Univ of Cal Davis Davis 95616 Graduate Fellowship Support Grant		32700	8350011 83
Univ of Cal Irvine Irvine 92717 Graduate Fellowship Support Grant		51800	8350012 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Cal Los Angeles Los Angeles 90024 Graduate Fellowship Support Grant		185300	8350013 83
Univ of Cal Riverside Riverside 92521 Graduate Fellowship Support Grant		32700	8350014 83
Univ of Cal San Diego San Diego 92093 Graduate Fellowship Support Grant		305200	8350015 83
Univ of Cal San Francisco San Francisco 94143 Graduate Fellowship Support Grant		82880	8350016 83
Univ of Cal Santa Barb Santa Barbara 93106 Graduate Fellowship Support Grant		72150	8350017 83
Univ of Cal Santa Cruz Santa Cruz 95064 Graduate Fellowship Support Grant		54500	8350018 83
Cal St Univ Fullerton Fullerton 92634 Southern California Mathematics Honors Institute	Ray C. Shiflett Mathematics	542370	8400501 84
Cal St Univ Long Beach Long Beach 90840 Graduate Fellowship Support Grant		13000	8450039 84
Cal St Univ Los Angeles Los Angeles 90032 A Process Approach to Elementary Science Through the Basic Skills	Alan N. Crawford Elementary Education	69530	8470130 84
California Inst of Tech Pasadena 91125 Graduate Fellowship Support Grant		530000	8450037 84
California Inst of Tech Pasadena 91125 Adapting the Mechanical Universe: Materials For High School Physics	David L. Goodstein Physics, Math & Astronomy	641386	8318420 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
California Section of American Chemical Society Berkeley 94704 San Francisco Area High School Chemistry Teachers' Project	Claire H. Smith N/A	79639	8470235 84
Harvey Mudd College Claremont 91711 Honors Workshop for Precollege Teachers of Chemistry, Mathematics, and Physics	John B. Rae Humanities & Social Scs	98230	8320182 84
Jungle Exotics Stdy Prog Los Angeles 90043 Exotic Animal Ethology For Elementary Schools	Millicent A. Wood	19635	8400350 84
Redwood H.S. Larkspur 94939 Presidential Award for Excellence in Science and Mathematics Teaching	Lyle Fisher Mathematics	5000	8470710 84
San Diego State Univ San Diego 92182 San Diego High School Science Teacher Development Program	Dale E. Ingmanson Natural Science	80384	8470394 84
Stanford University Stanford 94305 Graduate Fellowship Support Grant		2169525	8450131 84
Stanford University Stanford 94305 Information Processing of Graphic Displays (Information Science)	Gordon H. Bower Psychology	185756	8403273 84
Stephen M White Jr H.S. Carson 90745 Presidential Award for Excellence in Science and Mathematics Teaching	Alfred W. Guenther Science	5000	8470709 84
The Exploratorium San Francisco 94123 A Museum Based Model of Science Instruction for Teachers	Christopher Le Latour N/A	939782	8470177 84
Univ of Cal Berkeley Berkeley 94720 Graduate Fellowship Support Grant		1625000	8450040 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Cal Berkeley Berkeley 94720 Teacher Research Participation Program	A. Carl Helmholtz Expeditions Program	64855	8317072 84
Univ of Cal Davis Davis 95616 Graduate Fellowship Support Grant		143000	8450041 84
Univ of Cal Davis Davis 95616 Project Update: An Across-Fields Program on Recent Developments in Science For Honors Teachers	Victor A. Perkes Physics & Science Ed	32836	8470059 84
Univ of Cal Irvine Irvine 92717 Graduate Fellowship Support Grant		52000	8450042 84
Univ of Cal Irvine Irvine 92717 UCI Science and Mathematics Mentor Teacher Project	Rita W. Peterson Teacher Education	547457	8320691 84
Univ of Cal Los Angeles Los Angeles 90024 Graduate Fellowship Support Grant		221000	8450043 84
Univ of Cal Riverside Riverside 92521 Graduate Fellowship Support Grant		26000	8450044 84
Univ of Cal San Diego San Diego 92093 Graduate Fellowship Support Grant		325000	8450045 84
Univ of Cal San Francisc San Francisco 94143 Graduate Fellowship Support Grant		195000	8450046 84
Univ of Cal Santa Barb Santa Barbara 93106 Graduate Fellowship Support Grant		117000	8450047 84
Univ of Cal Santa Barb Santa Barbara 93106 The Involvement of Exemplary Teachers in the Improvement of Mathematics Education	Julian Weissglass Mathematics	53555	8470034 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Cal Santa Cruz Santa Cruz 95064 Graduate Fellowship Support Grant		52000	8450048 84
Univ of Cal Santa Cruz Santa Cruz 95064 Applications of Cognitive Science and Information Technologies in the Design of Interactive Video Modules for Precalculus Mathematics	Edward M. Landesman Mathematics	414181	8470053 84
Cal Poly St U Foundation San Luis Obispo 93407 Stepper Motor and Digital Control Experiments for the Electrical Machinery Laboratory	Samir Datta Electronic/Electrical Eng	50000	8551789 85
Cal Poly St Univ San Luis Obispo 93407 Robot-Served Computer-Aided Manufacturing System	Archie D. Cheda Engineering Technology	21000	8551787 85
Cal Poly St Univ Pomona Pomona 91768 Secondary School Science Enhancement Through Research Experience	Jill P. Adler Biological Sciences	194741	8470125 85
Cal Poly St Univ Pomona Pomona 91768 Microcomputer Based Laboratories in College Biology	Jonathan N. Baskin Biological Sciences	45419	8551679 85
Cal St Univ Bakersfield Bakersfield 93309 Psychology Equipment to Support An Evoked Potential Laboratory	Edwin H. Sasaki Psychology	7359	8552210 85
Cal St Univ Fresno Fresno 93740 Development of a Solid State Measurements and Characterization Laboratory	Joseph C. Plunkett Electrical Engineering	50000	8552310 85
Cal St Univ Fullerton Fullerton 92634 Equipment for Teaching the Preparation and Analysis of Macromolecular Substances in Undergraduate Biology Laboratories	David R. Fromson Biological Science	18016	8552243 85
Cal St Univ Fullerton Fullerton 92634 Acquisition of a High-Speed, Multi-User Graphics Work Station to Help Develop Physical Intuition in Undergraduate Physics Majors	Mark H. Shapiro Physics	39578	8551406 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Cal St Univ Long Beach Long Beach 90840 Graduate Fellowship Support Grant		17100	8550690 85
Cal St Univ Northridge Acampo 91330 Advances in Biological Science	Steven B. Oppenheimer Biology	93641	8550011 85
Cal St Univ Northridge Acampo 91330 Digital Seismology in Undergraduate Geophysics Program	Gerald W. Simila Geosciences	24149	8551023 85
Cal St Univ Sacramento Sacramento 95819 Interfacing A Microcomputer for Data Collection and Instrument Control in the Soil Mechanics Laboratory	Joseph A. Paduana Civil Engineering	9600	8551485 85
Cal St Univ San Bernardi San Bernardino 92407 Instructional Instrumentation for Archaeology in the Field and Laboratory	Russell J. Barber Anthropology	5846	8552337 85
Cal St Univ San Bernardi San Bernardino 92407 Instructional Instrumentation for Geography and Environ- mental Studies	Theodore R. McDowell Geography	17468	8552338 85
Cal St Univ San Lu Obispo San Luis Obispo 93407 Precollege Mathematics Teacher Education Project for the Ca- lifornia Central Coast	Alan W. Holz Mathematics	27480	8470566 85
California Inst of Tech Pasadena 91125 Graduate Fellowship Support Grant		598500	8550689 85
California Inst of Tech Pasadena 91125 Adapting the Mechanical Universe: Materials for Use in High Schools	David L. Goodstein Physics, Math & Astronomy	350505	8550178 85
California Lutheran Col Thousand Oaks 91360 Microcomputer-Mediated Physiology Laboratory Work Stations	Michael A. Kolitsky Biological Sciences	14057	8551398 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Claremont Graduate School Claremont 91711 Graduate Fellowship Support Grant		17100	8550708 85
Claremont U Ctr Syst Off William H. Sandmann Claremont 91711 Physics Computer System for Table Mountain Observatory		27638	8551400 85
Harvey Mudd College Claremont 91711 Partial Funding of A 200 MHz FT NMR Instrument	Philip C. Myhre Chemistry	50000	8551520 85
Harvey Mudd College Claremont 91711 Honors Workshop for Precollege Teachers of Chemistry, Mathematics, and Physics	John B. Rae Humanities & Social Scs	101969	8470602 85
Harvey Mudd College Claremont 91711 Computing and Psychophysiological Apparatus to Equip a General Psychology Laboratory for Science and Engineering Majors	Shirlynn Spacapan Humanities & Social Sci	17910	8551436 85
Humboldt State Univ Arcata 95521 Equipment for Undergraduate Laboratory Instruction in Biotechnology	William V. Allen Biological Sciences	50000	8551978 85
Loyola Marymount U Los Angeles 90045 Computer Technology for Undergraduate Mathematics Instruction	Michael R. Cullen Mathematics	23577	8551189 85
Patrick Henry Junior H.S. Granada Hills 91344 Presidential Award for Excellence in Science and Mathematics Teaching	Sheila K. Berman Mathematics	5000	8554493 85
Point Loma Nazarene Col San Diego 92106 Expansion of the Interdisciplinary Biology/Chemistry Curriculum	Michael R. McConnell Biology and Chemistry	14783	8552265 85
Pomona College Claremont 91711 Low-cost Dye Laser for Chemistry and Physics Instruction	Fred J. Grieman Chemistry	17000	8551382 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Prism Productions Inc. Acampo 91307 Science Reports For Television	Don Herbert	1896962	8470479 85
Rand Corporation Santa Monica 90401 An Intelligent Computer Tutor For Basic Algebra	David J. McArthur Information Sciences	499695	8470342 85
Rand Corporation Santa Monica 90401 Monitoring National Progress in Mathematics, Science and Technology Education: A Planning Proposal	Richard J. Shavelson Behavioral Sciences	274041	8470440 85
Rolling Hills H.S. Rolling Hills E90274 Presidential Award for Excellence in Science and Mathematics Teaching	John H. McGehee Science	5000	8554492 85
SRI International Stanford 94305 Soviet Precollege Education in Math & Science	Catherine P. Ailes	168202	8550158 85
San Diego State Univ San Diego 92182 Mathematical Problem Solving: Affective Influences on Cognitive Processes	Douglas B. McLeod Mathematics	83173	8550350 85
San Jose State Univ San Jose 95192 Science and Technology Training Program for American Trust Territory Elementary Teachers	John Morlan Instructional Technology	133021	8470446 85
San Jose State Univ San Jose 95192 Creation of Recombinant DNA Methods Course	Pamela C. Stacks Chemistry	24532	8551449 85
Sonoma State University Rohnert Park 94928 A Theme for Integrating Recent Advances in Science: Energy Development on the West Coast	Chris K. Kjeldsen	36876	8550110 85
Sonoma State University Rohnert Park 94928 School-University Partnership Program of Research and Training in Science Education (Project SUPPORT)	Douglas R. Martin Chemistry & Education	73077	8550243 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Sonoma State University Rohnert Park 94928 Temperature Control, Data Acquisition, and Optical Measurement Equipment for an Applied Semiconductor Physics Laboratory	Saeid Rahimi Physics and Astronomy	17169	8552246 85
Stanford University Stanford 94305 Graduate Fellowship Support Grant		2659851	8550781 85
Stanford University Stanford 94305 Applications of Computer Technology to Pre-College Calculus	Patrick Suppes Philosophy	494723	8550596 85
Stanford University Stanford 94305 Development of Laser Experiments to Illustrate Chemical Principles for High School Students	Richard N. Zare Chemistry	43154	8470336 85
The Exploratorium San Francisco 94123 The Development of a Series of Exhibits Concerning Cellular and Molecular Biology	Robert J. Semper Education	50000	8550498 85
Univ of Cal Berkeley Berkeley 94720 Graduate Fellowship Support Grant		2188800	8550691 85
Univ of Cal Berkeley Berkeley 94720 Teacher Research Participation Program	A. Carl Helmholtz Expeditions Program	376754	8470630 85
Univ of Cal Berkeley Berkeley 94720 Family Math and Science: Linking Home and School	John L. Kelley Lawrence Hall of Science	86534	8550341 85
Univ of Cal Berkeley Berkeley 94720 Effects of Automomous Learning on Cognitive Skill Acquisi- tion in Computer Programming Courses	Marcia C. Linn Sch of Education	579092	8470364 85
Univ of Cal Berkeley Berkeley 94720 Innovative Uses of Computers For Teaching Problem Solving	Marcia C. Linn Sch of Education	325579	8470514 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Cal Berkeley Berkeley 94720 EQUALS in Computer Technology	Lawrence F. Lowery Lawrence Hall of Science	109702	8470529 85
Univ of Cal Berkeley Berkeley 94720 Science for Science Teachers	George C. Pimentel Chemistry	196790	8550045 85
Univ of Cal Berkeley Berkeley 94720 Principled Teaching of Scientific and Mathematical Concepts	Frederick Reif Education	578109	8550332 85
Univ of Cal Davis Davis 95616 Graduate Fellowship Support Grant		273600	8550692 85
Univ of Cal Irvine Irvine 92717 Graduate Fellowship Support Grant		51300	8550693 85
Univ of Cal Los Angeles Los Angeles 90024 Graduate Fellowship Support Grant		307800	8550694 85
Univ of Cal Los Angeles Los Angeles 90024 UCLA/Los Angeles Science Project	Juan F. Lara Inter-Institutional Prog	999048	8400330 85
Univ of Cal Riverside Riverside 92521 Graduate Fellowship Support Grant		68400	8550695 85
Univ of Cal Riverside Riverside 92521 Pre-College Teacher Development in Physical Science and Mathematics: Lecture Demonstration Design and Construction, Review of Mathematics and Current Topics in Physics	Robert L. Wild Physics	50073	8470613 85
Univ of Cal San Diego San Diego 92093 Graduate Fellowship Support Grant		461700	8550696 85
Univ of Cal San Francisco San Francisco 94143 Graduate Fellowship Support Grant		205200	8550697 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Cal Santa Barb Santa Barbara 93106 Graduate Fellowship Support Grant		171000	8550698 85
Univ of Cal Santa Barb Santa Barbara 93106 Cognitive Prerequisites and Consequences of Learning Computer Programming	Richard E. Mayer Psychology	54247	8470248 85
Univ of Cal Santa Cruz Santa Cruz 95064 Graduate Fellowship Support Grant		85500	8550699 85
Univ of San Francisco San Francisco 94117 Middle School Math Institute	Millianne Lehmann Mathematics	50816	8550170 85
Univ of Southern Cal Los Angeles 90007 Graduate Fellowship Support Grant		34200	8550678 85
COLORADO			
Colorado State University Fort Collins 80523 Graduate Fellowship Support Grant		49920	8350028 83
George Washington H.S. Denver 80220 Presidential Award for Excellence in Science and Mathematics Teaching	Vaughan Aandahl Mathematics	5000	N/A 83
George Washington H.S. Englewood 80111 Presidential Award for Excellence in Science and Mathematics Teaching	Irwin J. Hoffman Mathematics	5000	N/A 83
Univ Colorado at Boulder Boulder 80309 Graduate Fellowship Support Grant		85810	8350029 83
Academy of Ind Scholars Boulder 80309 The Process of Becoming a Scientist	Lawrence Senesh	196054	8470182 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Colorado School of Mines Golden 80401 Precollege Teacher Development in Science Project For K-12 Teachers in the Denver Metropolitan Area	John U. Trefny Physics	54456	8470349 84
Colorado State Univ Fort Collins 80523 High School PROJECT ENGINEERING	Lee M. Maxwell Electrical Engineering	52824	8470123 84
Colorado State University Fort Collins 80523 Graduate Fellowship Support Grant		65000	8450056 84
Pueblo County H.S. Pueblo 81006 Presidential Award for Excellence in Science and Mathematics Teaching	Christine J. Comins Mathematics	5000	8470712 84
Sabin Jr H.S. Colorado Spring 80917 Presidential Award for Excellence in Science and Mathematics Teaching	Marie Z. Sullivan Science	5000	8470711 84
Univ Colorado at Boulder Boulder 80309 Graduate Fellowship Support Grant		182000	8450057 84
Univ Colorado at Boulder Boulder 80309 Collaborative Research: Understanding and Solving Word Arithmetic Problems	Walter Kintsch Psychology	68196	8309075 84
Univ of No Colorado Greeley 80639 Honors Workshop for Secondary Science Teachers of Colorado	David L. Pringle Chemistry	76323	8470011 84
University of Denver Denver 80208 Future Oriented Mathematics and Computer Literacy Development Project for Elementary Schools	Ruth I. Hoffman Mathematics	129411	8470128 84
University of Denver Denver 80208 Memory For Text: Integration Versus Compartmentalization	George R. Potts Psychology	194994	8409272 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Amer Indian Sci&Eng Soc Boulder 80302 Workshop for Science Teachers from American Indian Schools	Norbert S. Hill	190850	8550184 85
Biol Scs Curriculum Stdy Colorado Spring80903 Encourage Literacy of Science Teachers in the Use of Micro-Computers (ENLIST Micros)	James D. Ellis Colorado College	161209	8470061 85
Biol Scs Curriculum Stdy Colorado Spring80903 Advances in Immunology and Immunogenetics: Development and Distribution of an Instructional Monograph For High School Teachers and Students	Joseph D. McInerney	69181	8470408 85
Carmody Junior H.S. Lakewood 80227 Presidential Award for Excellence in Science and Mathematics Teaching	Fred A. Lees, Jr. Mathematics	5000	8554495 85
Colorado State University Fort Collins 80523 Graduate Fellowship Support Grant		34200	8550709 85
Denver Audubon Society Denver 80206 Volunteers Teaching Children: Denver Audubon Society's Urban Education Project	Karen S. Hollweg	57900	8550164 85
Fort Lewis College Durango 81301 Instruction in the Principles and Applications of Gas Chromatography/Mass Spectrometry	John M. Ritchey Chemistry	23262	8551571 85
Pomona High School Arvada 80005 Presidential Award for Excellence in Science and Mathematics Teaching	Forrest H. Shoemaker Science	5000	8554494 85
Soc Sci Educ Consortium Boulder 80302 Building Support Networks for Improved Science/Technology/Society Education	Irving Morrissett	92346	8470585 85
Univ Colorado at Boulder Boulder 80309 Graduate Fellowship Support Grant		222300	8550710 85

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STATE	INSTITUTION	CITY, ZIP	PROJECT DIRECTOR	DEPARTMENT	AWARD AMOUNT	GRANT NUMBER	FISCAL YEAR
	Univ Colorado at Boulder	Boulder 80309	Ronald D. Anderson	Sch of Education	66526	8470651	85
	An Honors Workshop in the Natural Sciences						
	Univ Colorado at Boulder	Boulder 80309	David M. Armstrong	Ctr for Interdisciplinary	117960	8550161	85
	Rocky Mountain Regional Workshop for Secondary School Science Teachers						
	Univ Colorado at Boulder	Boulder 80309	A. D. Hill	Geography	38964	8470570	85
	High School World Geography Teachers' Development Workshop						
	Univ Colorado at Denver	Denver 80202	Daniel F. Wunk	Electrical Eng & Comp	23100	8551551	85
	Modernization of Computer Engineering Laboratories						

CONNECTICUT

Greenwich H.S.	Darien 06820	Ronald I. Perkins	Science	5000	N/A	83
Presidential Award for Excellence in Science and Mathematics Teaching						
Stratford H.S.	Huntington 06484	Nancy S. Cetorelli	Mathematics	5000	N/A	83
Presidential Award for Excellence in Science and Mathematics Teaching						
Yale University	New Haven 06520			174400	8350144	83
Graduate Fellowship Support Grant						
Brien McMahon H.S.	Norwalk 06850	Joel W. Block	Science	5000	8470713	84
Presidential Award for Excellence in Science and Mathematics Teaching						
Coginchaug Regional H.S.	Durham 06422	John C. De Meo	Mathematics	5000	8470714	84
Presidential Award for Excellence in Science and Mathematics Teaching						
Eastern Conn St Col	Willimantic 06226	Barry L. Wulff	Biology	56282	8320298	84
NSF Honors Workshop in Botany						

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
University of Connecticut Storrs 06268 Graduate Fellowship Support Grant		13000	8450060 84
Yale University New Haven 06520 Graduate Fellowship Support Grant		650000	8450152 84
Yale University New Haven 06520 Problem Solving Strategies in Computer Program Generation and Comprehension (Information Science)	Beth Adelson Computer Science	99406	8409618 84
Yale University New Haven 06520 Understanding Misconceptions of Novice Programmers	Elliot M. Soloway Computer Science	260487	8470014 84
Darien High School Darien 06820 Presidential Award for Excellence in Science and Mathematics Teaching	Joan R. Burchenal Science	5000	8554496 85
Eastern Conn St Col Willimantic 06226 Undergraduate Laboratory Equipment to Improve the Teaching of Cellular-Molecular and Population Biology	Gloria J. Colurso Biology	33363	8551240 85
Farmington High School Farmington 06032 Presidential Award for Excellence in Science and Mathematics Teaching	Thomas B. Day Mathematics	5000	8554497 85
St Joseph College West Hartford 06117 Modernization of Laboratory Instrumentation in Chromato- graphy	Harold T. McKone Chemistry	19525	8551292 85
University of Bridgeport Bridgeport 06601 Creation of A Signal Processing Laboratory	Darrell W. Horning Electrical/Computer Eng	47670	8552011 85
University of Connecticut Storrs 06268 Graduate Fellowship Support Grant		17100	8550712 85

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STATE	INSTITUTION CITY, ZIP	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
	AWARD TITLE			
	University of Hartford West Hartford 06117	Ralph Aloisi Biology & Health Science	49666	8551272 85
	Equipment to Integrate Student Research into the Freshman Biology Program			
	Yale University New Haven 06520		786600	8550800 85
	Graduate Fellowship Support Grant			
	Yale University New Haven 06520	Elliot M. Soloway Computer Science	174993	8470150 85
	Transfer Effects on Computer Programming			
DELAWARE				
	Central M S Dover 19901	Verna M. Price Science	5000	N/A 83
	Presidential Award for Excellence in Science and Mathematics Teaching			
	Concord H.S. Wilmington 19810	Denise I. Griffith Mathematics	5000	N/A 83
	Presidential Award for Excellence in Science and Mathematics Teaching			
	Christiana H.S. Newark 19713	Harry J. Dillner Science	5000	8470715 84
	Presidential Award for Excellence in Science and Mathematics Teaching			
	University of Delaware Newark 19711	Willard E. Baxter Mathematics	192034	8470052 84
	Materials Development and Institutes to Enhance Precollege Mathematics Instruction			
	University of Delaware Newark 19711	Clifford W. Sloyer Mathematics	274335	8320141 84
	An Innovative Approach to the Use of Microcomputers in the Teaching of Applied Mathematics			
	William Penn H.S. New Castle 19720	Harry Kutch Mathematics	5000	8470716 84
	Presidential Award for Excellence in Science and Mathematics Teaching			

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Hanby Junior High School Wilmington 19810 Presidential Award for Excellence in Science and Mathematics Teaching	Robert E. Lewis Science	5000	8554498 85
Milton Junior H.S. Milton 19968 Presidential Award for Excellence in Science and Mathematics Teaching	Shirley P. Miller Mathematics	5000	8554499 85
University of Delaware Newark 19711 Education of Secondary School Teachers in Marine Science	Les A. Picker Educational Development	108629	8550087 85

DISTRICT OF COLUMBIA

Nat Acad Sci-Nat Res Cnl Washington 20418 Conference on Statistics of Supply & Demand for Science and Math Teachers	Edwin D. Goldfield	15000	8444036
Amer Meteorological Soc Washington Planning Conference on Meteorology Education	Kenneth C. Spengler	9500	8470360 83
American Chemical Society Washington 20036 Group Travel For U.S. Participants/International Conference On Chemical Education (Chemistry) - August 22-28, 1983 Montpellier, France	Moses Passer Education Division	18000	8308062 83
Banneker H.S. Washington 20011 Presidential Award for Excellence in Science and Mathematics Teaching	Doris B. Deboe Mathematics	5000	N/A 83
George Washington Univ Washington 20052 Graduate Fellowship Support Grant		31400	8350040 83
Georgetown University Washington 20057 Graduate Fellowship Support Grant		21800	8350039 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Howard D. Woodson Sen HS Washington 20011 Presidential Award for Excellence in Science and Mathematics Teaching	Katie Walker Science	5000	N/A 83
Howard University Washington 20059 Graduate Fellowship Support Grant		2700	8350047 83
Nat Acad Sci-Nat Res Cnl Washington 20418 Evaluation Services for NSF Graduate Fellowship Program, NSF Minority Graduate Fellowship Program, Evaluation Study of NSF Grad Fellow Recipients, & Accompanying Ancillary Service	J. Chester McKee	881500	8314671 83
Nat Acad of Sciences Washington 20418 Proposal for Providing Evaluative Services For NSF Graduate Fellowship Program, NSF Minority Graduate Fellowship Program, & Accompanying Ancillary Services	Frank D. Hansing	37945	8214653 83
Nat Science Tchrs Assoc Washington 20036 Presidential Awards for Excellence in Science and Mathematics Teaching	John Fowler	485470	8314142 83
Amer Chemical Soc Washington 20036 Chemistry Education Planning Conference; June 1-3, 1984; College Park, Maryland	Marjorie H. Gardner Lawrence Hall of Science	36085	8470372 84
Amer Chemical Soc Washington 20036 Chemistry in the Community--Phase II	William T. Lippincott Chemistry	252059	8470104 84
Amer Statistical Assoc Washington 20006 A Program to Improve Quantitative Literacy in the Schools	Fred C. Leone	854802	8317656 84
American University Washington 20016 U.S./Italy Joint Seminar on Science Education For Elementary School Children, October 25-28, 1983, Rome, Italy	Doris E. Hadary Chemistry	3275	8300156 84
Assn for Ed Data System Washington 20036 Travel for U.S. Participants in EDEXPO's 1st International Forum for the World of Education; Geneva, Switzerland, October 12 - 14, 1984	John W. Hamblen Computer Science	32650	8470409 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Banneker H.S. Washington 20001 Presidential Award for Teaching	Ethel C. Henderson Mathematics	5000	8470802 84
Capital Children's Museu Washington 20002 Prototype Science-Math Learning Laboratory Project	Candace J. Sullivan	825387	8319154 84
Conf Bd of the Math Sci Washington 20036 A Conference to Design a National Mathematical Sciences Education Board	Marcia P. Sward	16479	8402161 84
Council Chief St Sch Off Washington 20001 A Framework For Core Learning in Mathematics and Science	John F. Martin Federal-State Relations	148460	8470196 84
Department of Education Washington 20202 Research on Higher-Order Skill Assessment Techniques in Mathematics, Science and Technology	Lawrence M. Rudner Testing Assessment & Eval	350000	8470517 84
Department of Education Washington 20202 Increasing the Utility of the National Assessment for Educational Progress as a Science Indicator	Lawrence M. Rudner Testing Assessment & Eval	30000	8470518 84
Department of Education Washington 20202 Teacher Supplement to NLS-72 Fifth Follow-Up Survey	Ricky Takai U.S. Dept Education NCES	200000	8470490 84
Exec Off of Mgmt & Budg Washington 20503 Interagency Consortium on National Statistics	Suzann K. Evinger Executive Off of Pres	30000	8306205 84
George Washington Univ Washington 20052 Graduate Fellowship Support Grant		13000	8450069 84
Georgetown University Washington 20057 Graduate Fellowship Support Grant		2100	8450068 84
Georgetown University Washington 20057 Physics Teaching: The Transfer of Scientific Ideas to Pre-College Students	Kathryn Olesko History	25000	8409190 84

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Math Assn of America Washington 200010000	Alfred B. Willcox Executive Department	30450	8316284 84
Pre-College Mathematics Education Around the World: Information From the Fifth International Congress on Mathematics Education			
Nat Acad Sci-Nat Res Cnl Washington 20418	David A. Goslin Behavioral & Social Scs	450500	8470459 84
The Development of a Coordinated Monitoring System for Precollege Science and Mathematics Education			
Nat Acad Sci-Nat Res Cnl Washington 20418	Pembroke J. Hart U.S. Geodynamics Committee	30000	8409441 84
Support of the Geophysics Film Committee			
Nat Acad Sci-Nat Res Cnl Washington 20418	J. Chester McKee	1007140	8314671 84
Evaluation Services for NSF Graduate Fellowship Program, NSF Minority Graduate Fellowship Program, Evaluation Study of NSF Grad Fellow Recipients, & Accompanying Ancillary Service			
Nat Science Tchrs Assoc Washington 20036	John M. Fowler	114750	8314142 84
Presidential Awards for Excellence in Science and Mathematics Teaching			
Nat Science Tchrs Assoc Washington 20036	John M. Fowler Special Projects	995455	8316285 84
A Chautauqua-Type Course and Materials Development Project For Middle/Junior and Secondary School Science Teachers			
Nat Science Tchrs Assoc Washington 20036	John M. Fowler Special Projects	40990	8470549 84
Triangle Conference: A Conference on Precollege Science and Technology			
Nat Science Tchrs Assoc Washington 20036	James J. Gallagher Science Education	41000	8413142 84
Inter-American Seminar on Science Education: Science Education and Cultural Environments in the Americas; December 4-8, 1984; Panama City, Panama			
Nat Science Tchrs Assoc Washington 20036	Helenmari E. Hofman Member Services	66118	8316288 84
Baseline Data: U.S. Secondary School Science & Mathematics Teacher Population			

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Nat Science Tchrs Assoc Washington 20036 Short Courses With Industry-Related Experiences to Update Outstanding Science Teachers	Marilyn M. De Wall Publications	429327	8316279 84
The Maret School Washington 20008 Presidential Award for Excellence in Science and Mathematics Teaching	Kathleen Sweeney-Hammond Science	5000	8470801 84
Alice Deal Junior H.S. Washington 20016 Presidential Award for Excellence in Science and Mathematics Teaching	Clemontene W. Rountree Science	5000	8554500 85
Amer Assoc For Advnt Sci Washington 20005 AAAS Science and Technology Center Project	Albert H. Teich Public Sector Programs	45042	8550294 85
Amer Chemical Soc Washington 20036 Travel Grant Funding in Support of Participants to the Eighth International Conference on Chemical Education	Robert C. Brasted Chemistry	26000	8550284 85
Amer Chemical Soc Washington 20036 Chemistry in the Community--Phase II	William T. Lippincott Chemistry	218045	8470104 85
Amer Chemical Soc Washington 20036 Development of an In-Service Workshop Program for Secondary School Chemistry Teachers	Moses Passer Education Division	533996	8470375 85
Assn of Sci-Tech Ctrs Washington 20036 Traveling Exhibitions in Mathematics, Engineering, and Paleontology: Resource Sharing Among Science Museums	Wendy Pollock Traveling Exhibition Serv	357554	8550270 85
Ballou Senior H.S. Washington 20032 Presidential Award for Excellence in Science and Mathematics Teaching	Rosalie A. Dance Mathematics	5000	8554501 85
Cosmos Corporation Washington 20006 Disseminating Information about Exemplary Science and Mathematics Programs	Rolf K. Blank 1730 K Street, N.W., Suit	299645	8550079 85

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Council Chief St Sch Off Washington 20001	Joanne Capper	98829	8550482 85
A Proposal to Coordinate Assessments of Needs in Mathematics and Science Education in the States as Required by Title II, P.L. 98-377			
DC Public Schools Washington 20001	Mary B. Harbeck Science	243783	8470545 85
Model Elementary Science Program			
Department of Education Washington 20202	Samuel Y. Gibbon Mathematics	469257	8550269 85
The Second Voyage of the Mimi			
George Washington Univ Washington 20052		17100	8550721 85
Graduate Fellowship Support Grant			
Georgetown University Washington 20057		17100	8550720 85
Graduate Fellowship Support Grant			
Howard University Washington 20059		17100	8550679 85
Graduate Fellowship Support Grant			
Math Assn of America Washington 200010000	Richard D. Anderson Mathematics	56000	8511733 85
Analysis of Undergraduate Mathematical Sciences Programs in Universities, Four Year Colleges, and Two-Year Colleges, 1985-86			
Math Assn of America Washington 200010000	Alfred B. Wilcox Mathematics	203775	8470469 85
Applications in Mathematics - An Instructional Program for High Schools			
Modern Talking Pictures Washington 20036	Robert Kelley	20000	8412800 85
Film Distribution			
Nat Acad Sci-Nat Res Cnl Washington 20418	Edwin D. Goldfield Committee on National Sta	130000	8550971 85
Study on Statistics on the Supply and Demand for Precollege Science and Mathematics Teachers			

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Nat Acad Sci-Nat Res Cnl Washington 20418 Conference on Reliability of International Data	Edwin D. Goldfield Committee on National Sta	50000	8508354 85
Nat Acad Sci-Nat Res Cnl Washington 20418 Evaluation Services for NSF Graduate Fellowship Program, NSF Minority Graduate Fellowship Program, Evaluation Study of NSF Grad Fellow Recipients, & Accompanying Ancillary Service	J. Chester McKee	1072790	8314671 85
Nat Acad of Sciences Washington 20418 Involving Scientists, Mathematicians and Engineers in Research in Education	David A. Goslin Behavioral & Social Scs	131620	8470489 85
Nat Science Tchrs Assoc Washington 20036 Industry-Sponsored Honors Workshops to Update Outstanding Science teachers	Marily M. De Wall Publications	272091	8550039 85
Nat Science Tchrs Assoc Washington 20036 Technical Proposal in Response to RFP 84-133, Presidential Awards for Excellence in Science & Mathematics Teaching Program Support Services	John M. Fowler Special Projects	399080	8550147 85
Nat Science Tchrs Assoc Washington 20036 Principals as Partners in the Improvement of Elementary School Science	Kenneth R. Mechling Biology	102960	8550171 85
National Public Radio Washington 20036 Science Coverage on Public Radio	Robert Siegel Programming	815258	8470505 85
Native Amer Sci Ed Assn Washington 20005 Building and Recognizing Quality Pre-College Science and Mathematics Instruction in Native American Communities	Gary G. Allen Office of Academic V.P.	172635	8470547 85
U of DC Ga Ave Harvard Washington 20009 Early Childhood Science Teacher Training Project for Grades K-2	StMildred Lockhart Elementary Education	46359	8550223 85

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FLORIDA

Florida State University Tallahassee 32306 Graduate Fellowship Support Grant		32700	8350037 83
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Gulliver Academy M S Miami 33165 Presidential Award for Excellence in Science and Mathematics Teaching	Jo Anne S. Taber Mathematics	5000	N/A 83
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Terry Parker H.S. Jacksonville 32211 Presidential Award for Excellence in Science and Mathematics Teaching	Frances L. Stivers Science	5000	N/A 83
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Univ of South Florida Tampa 33620 Graduate Fellowship Support Grant		10900	8350111 83
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University of Florida Gainesville 32611 Graduate Fellowship Support Grant		32700	8350038 83
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Coral Springs H.S. Coral Springs 33065 Presidential Award for Excellence in Science and Mathematics Teaching	Angie L. Matamoros Science	5000	8470717 84
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Florida Atlantic Univ Boca Raton 33431 Analogical Reasoning in Solving Algebra Word Problems	Stephen K. Reed Psychology	59945	8312763 84
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Florida State University Tallahassee 32306 Graduate Fellowship Support Grant		39000	8450066 84
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Florida State University Tallahassee 32306 Honors Workshop for High School Teachers of Science in Florida	Edward K. Mellon Chemistry	142500	8470146 84
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Sandalwood Jr-Sr H.S. Jacksonville 32216 Presidential Award for Excellence in Science and Mathematics Teaching	Marita H. Eng Mathematics	5000	8470718 84
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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Central Florida Orlando 32816 Graduate Fellowship Support Grant		13000	8450010 84
Univ of South Florida Tampa 33620 Graduate Fellowship Support Grant		26000	8450128 84
University of Florida Gainesville 32611 Graduate Fellowship Support Grant		78000	8450067 84
University of Florida Gainesville 32611 Honors Workshop in Mathematics, Science and Computer Science for Secondary School Teachers	Charles W. Nelson Mathematics	52500	8470225 84
Eckerd College Saint Petersburg 33733 Development of a Microcomputer System Laboratory	Edmund Gallizzi Mathematics	10300	8552208 85
Embry-Riddle Aero Univ Daytona Beach 32014 Undergraduate Composite Materials Laboratory	Charles N. Eastlake Aeronautical Engineering	20572	8551192 85
Florida State Museum Gainesville 32611 A Slice of Life: Earth History to Touch, A Traveling Exhibition	Charlotte M. Porter Interpretation	49434	8550539 85
Florida State University Tallahassee 32306 Graduate Fellowship Support Grant		29500	8550666 85
Jacksonville Epscp1 H.S. Jacksonville 32207 Presidential Award for Excellence in Science and Mathematics Teaching	Otto Phanstiel Science	5000	8554502 85
The Sch Bd Broward Cty Fort Lauderdale 33312 Teacher Development in Secondary School Science Research	Nancy Romance Science	76973	8470510 85
Thomas Jefferson Jr H.S. Merritt Island 32952 Presidential Award for Excellence in Science and Mathematics Teaching	Barbara A. Cain Mathematics	5000	8554503 85

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STATE	INSTITUTION	CITY, ZIP	AWARD TITLE	PROJECT DIRECTOR	DEPARTMENT	AWARD AMOUNT	GRANT NUMBER	FISCAL YEAR
	Univ of Central Florida	Orlando 32816	Graduate Fellowship Support Grant			17100	8550702	85
	Univ of South Florida	Tampa 33620	Graduate Fellowship Support Grant			17000	8550778	85
	University of Florida	Gainesville 32611	Graduate Fellowship Support Grant			17100	8545758	85
	University of Florida	Gainesville 32611	Graduate Fellowship Support Grant			118080	8550719	85
	University of Florida	Gainesville 32611	Program in Excellence in Mathematics, Science, and Computer Education	Charles W. Nelson	Mathematics	63000	8550073	85
	University of Florida	Gainesville 32611	Energy and Environment in Florida: Model Instructional Materials for High School Science	Howard T. Odum	Environmental Engineering	95495	8470572	85
	University of Tampa	Tampa 33606	Equipment to Upgrade the Teaching of Research Methods and Statistics in Psychology, Political Science and Sociology	Steve Hekkanen	Div of Social Sciences	7872	8551353	85

GEORGIA

Central High School	Macon 31210	Presidential Award for Excellence in Science and Mathematics Teaching	James E. Pettigrew	Mathematics	5000	N/A	83
Emory University	Atlanta 30322	Graduate Fellowship Support Grant			21800	8350036	83
Ga Inst Tech	Atlanta 30332	Graduate Fellowship Support Grant			10900	8350041	83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Georgia Southern College Statesboro 30460 Graduate Fellowship Support Grant		10900	8350043 83
Turner M S Lithia Springs 30057 Presidential Award for Excellence in Science and Mathematics Teaching	Richard R. Bell Science	5000	N/A 83
University of Georgia Athens 30602 Graduate Fellowship Support Grant		30280	8350042 83
Atlanta University Atlanta 30314 Graduate Fellowship Support Grant		13000	8450155 84
Cedar Shoals H.S. Athens 30605 Presidential Award for Excellence in Science and Mathematics Teaching	Annie L. Pace Science	5000	8470719 84
Discovery Learning Inc Atlanta 30308 Honoring and Developing Excellence Among Mathematics Teachers at Indian Reservation Schools	Deborah M. Baldridge Mathematics	340088	8316874 84
Emory University Atlanta 30322 Graduate Fellowship Support Grant		39000	8450065 84
Ga Inst Tech Atlanta 30332 Graduate Fellowship Support Grant		6770	8350041 84
Ga Inst Tech Atlanta 30332 Graduate Fellowship Support Grant		78000	8450070 84
Ga Inst Tech Main Campus Atlanta 30332 Extracting Information From Experience: Experience-Driven Incremental Learning (Information Science)	Janet L. Kolodner Information & Comp Sc	210000	8317711 84
Northside H.S. Atlanta 30305 Presidential Award for Excellence in Science and Mathematics Teaching	Raymond L. Lamb Mathematics	5000	8470720 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
University of Georgia Athens 30602 Graduate Fellowship Support Grant		13000	8450071 84
West Georgia College Carrollton 30117 Summer Program for Secondary Physical Science Teachers	Lucille B. Garmon Chemistry	30100	8470205 84
Atlanta University Atlanta 30314 Graduate Fellowship Support Grant		17100	8550683 85
Central Gwinnett H.S. Lawrenceville 30245 Presidential Award for Excellence in Science and Mathematics Teaching	Lila K. McGahee Adair Science	5000	8554504 85
Clark College Atlanta 30314 Introductory Laboratory for Dual-Degree Engineering Students	Michael B. Rhodes Physics	19015	8551327 85
Emory University Atlanta 30322 Graduate Fellowship Support Grant		21200	8550718 85
Emory University Atlanta 30322 Honors Workshop in Microcomputers and Lasers	Raymond C. DuVarney Physics	74177	8470326 85
Emory University Atlanta 30322 Teaching and Understanding Geometric Relationships Through LOGO	Eugene C. Lee Div of Ed Studies	274321	8470287 85
Ga Inst Tech Main Campus Atlanta 30332 Graduate Fellowship Support Grant		122525	8550722 85
Ga Inst Tech Main Campus Atlanta 30332 Middle School Science and Engineering Project	William R. Ernst School of Chemical Eng	251425	8470198 85
Glenn Hills High School Augusta 30906 Presidential Award for Excellence in Science and Mathematics Teaching	Susan E. Craig Mathematics	5000	8554505 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Kennesaw College Marietta 30061 Advanced Instrumentation for A Directed Study Program in Chemistry	Linda C. Hodges Chemistry	25045	8551864 85
Mercer University Macon 31207 Modern Nuclear Magnetic Resonance and UV-Visible Instrumentation to Improve Chemical Education	Mary L. Severson Chemistry	30000	8551133 85
North Georgia College Dahlonega 30597 Computerization of Physics Labs at North Georgia College	Donald E. Kinkaid Physics	12000	8551061 85
SE Consortium Minor Eng Atlanta 30332 Exporting Success at the Grassroots Level - Elaboration and Expansion of the SECME Model Through Support of Local Beacon School Networks in the Secondary Schools	Carolyn C. Chesnutt	130241	8550247 85
University of Georgia Athens 30602 Graduate Fellowship Support Grant		15380	8550723 85
University of Georgia Athens 30602 Stand-Alone Materials for Training Science Teachers to Use Computing in Teaching	James R. Okey Science Education	96558	8470007 85
University of Georgia Athens 30602 Child Generated Multiplying and Dividing Algorithms: A Teaching Experiment	Leslie P. Steffe Mathematics	152912	8550463 85
West Georgia College Carrollton 30118 Equipment for Improving Undergraduate Laboratories in Molecular Biology and Biochemistry	Spencer H. Hamada Biology	11950	8551432 85

HAWAII

McKinley H.S. Honolulu 96825 Presidential Award for Excellence in Science and Mathematics Teaching	Arthur I. Kimura Science	5000	N/A 83
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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Moanalua H.S. Aiea 96701 Presidential Award for Excellence in Science and Mathematics Teaching	Barbara Kagan Mathematics	5000	N/A 83
Univ of Hawaii-Manoa Honolulu 96822 Graduate Fellowship Support Grant		10900	8350150 83
Aiea High School Aiea 96701 Presidential Award for Excellence in Science and Mathematics Teaching	Iris H. Shinseki Science	5000	8470721 84
Iolani School Honolulu 96826 Presidential Award for Excellence in Science and Mathematics Teaching	Reverie N. Suzuki Mathematics	5000	8470722 84
Univ of Hawaii-Manoa Honolulu 96822 Graduate Fellowship Support Grant		13000	8450075 84
Chaminade U of Honolulu Honolulu 96816 Early Student Exposure to Instrumental Techniques	Arthur L. Mori Phys Sci/Math/CS and Bio	16172	8551791 85
Lolani School Honolulu 96826 Presidential Award for Excellence in Science and Mathematics Teaching	David K. Masunaga Mathematics	5000	8554507 85
McKinley High School Honolulu 96814 Presidential Award for Excellence in Science and Mathematics Teaching	Barbara Rogers Science	5000	8554506 85
Univ of Hawaii-Manoa Honolulu 96822 Graduate Fellowship Support Grant		17100	8550726 85
Univ of Hawaii-Manoa Honolulu 96822 RESEARCH: Reuniting Elements of the Science Education and Research Communities in Hawaii	Robert L. Campbell Curriculum & Instruction	49942	8550189 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Hawaii-Manoa Honolulu 96822 Developing Thought Processes in Elementary Algebra	Sidney L. Rachlin Curriculum Rsch & Develop	182857	8470273 85

IDAHO

Blackfoot H.S. Blackfoot 83221 Presidential Award for Excellence in Science and Mathematics Teaching	Jerry Hong Mathematics	5000	N/A 83
Buhl High School #412 Twin Falls 83301 Presidential Award for Excellence in Science and Mathematics Teaching	Charles R. Humphries Science	5000	N/A 83
Capital High School Boise 83704 Presidential Award for Excellence in Science and Mathematics Teaching	Joanne T. Thompson Science	5000	8470723 84
Meridian Sr H.S. Meridian 83642 Presidential Award for Excellence in Science and Mathematics Teaching	Jerry Helgeson Mathematics	5000	8470724 84
Boise State University Boise 83725 Workshop on Local and Regional Field Studies in Earth Science	Monte D. Wilson Geology & Geophysics	47264	8550205 85
Hillside Junior H.S. Boise 83703 Presidential Award for Excellence in Science and Mathematics Teaching	Elisabeth B. Linney Mathematics	5000	8554509 85
Pocatello High School Pocatello 83201 Presidential Award for Excellence in Science and Mathematics Teaching	Annabelle L. Lerch Science	5000	8554508 85

ILLINOIS

Adlai E. Stevenson H.S. Libertyville 60048 Presidential Award for Excellence in Science and Mathematics Teaching	Charles L. Hamberg Mathematics	5000	N/A 83
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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Northwestern University Evanston 60201 Graduate Fellowship Support Grant		130800	8350085 83
Southern Ill U Carbondal Carbondale 62901 Graduate Fellowship Support Grant		10700	8350112 83
Univ of Illinois-Chgo Cr Chicago 60680 Graduate Fellowship Support Grant		10900	8350049 83
Univ of Illinois-Urbana Urbana 61801 Graduate Fellowship Support Grant		316100	8350050 83
University of Chicago Chicago 60637 Graduate Fellowship Support Grant		283400	8350021 83
Von Steuben Met Sci Ctr Skokie 60076 Presidential Award for Excellence in Science and Mathematics Teaching	Henry Rosenbaum Science	5000	N/A 83
Bradley University Peoria 61625 Honors Workshop in Mathematics for Secondary School Teachers	Steve Permuth Research & Projects	58880	8400492 84
Glenbard West H.S. Glen Ellyn 60137 Presidential Award for Excellence in Science and Mathematics Teaching	George S. Zahrobsky Science	5000	8470725 84
Illinois State Univ Normal 61761 Discrete Mathematics and Computing: an Honors Workshop	John A. Dossey Mathematics	103138	8318554 84
Illinois State Univ Normal 61761 Honors Project for Outstanding Elementary/Middle Teachers in	Thomas C. Fitch Curriculum & Instruction	517118	8470383 84
Illinois State Univ Normal 61761 An Honors Workshop in Mathematics Applications, Problem Solving, and Computing for Master Elementary School Teachers	Carol A. Thornton Mathematics	87918	8319970 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Margaret Mead Jr H.S. Elk Grove Villa60007 Presidential Award for Excellence in Science and Mathematics Teaching	Cathy J. Cook Mathematics	5000	8470726 84
Northeastern Ill Univ Chicago 60625 Analysis of Natural and Highly Impacted Ecosystems -- An Honors Teacher Workshop	Eugene W. Mc Ardle Biology	64333	8470013 84
Northern Illinois Univ De Kalb 60115 A Developmentally Based Instructional Sequence for Teaching Estimation With Model Classroom Materials	Judith Threadgill-Sowder Mathematics	58488	8320288 84
Northwestern University Evanston 60201 Graduate Fellowship Support Grant		208000	8450110 84
Southern Ill U-Carbondal Carbondale 62901 Honors Workshop in Microbiology for Master Biology Teachers	Isaac L. Shechmeister Microbiology	168637	8470140 84
Southern Ill U-Carbondal Carbondale 62901 Honors Workshop for Science Teachers of the Handicapped	Mary J. Sullivan Continuing Education	102053	8470054 84
Univ of Illinois-Urbana Urbana 61801 Graduate Fellowship Support Grant		165000	8450077 84
Univ of Illinois-Urbana Urbana 61801 The Teaching and Learning of Mathematics in American Secondary Schools: Publication of a Symposium on the Findings of the Second International Mathematics Study	Kenneth J. Travers Secondary Education	56065	8542629 84
University of Chicago Chicago 60637 Graduate Fellowship Support Grant		416000	8450051 84
Bradley University Peoria 61625 Microwave and Software Instrumentation for Advanced EE and EET Laboratories	Brian D. Huggins Electrical Engineering	40300	8552058 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Carbondale Community H.S. Carbondale 62901 Presidential Award for Excellence in Science and Mathematics Teaching	Zoe A. Lightfoot Science	5000	8554510 85
Chicago State University Chicago 60628 Undergraduate Instrumentation Course Improvement Through the Acquisition of a High Pressure Liquid Chromatograph	Michael N. Mimnaugh Physical Sciences	9411	8552090 85
Fermi Natl Accel Lab Batavia 60510 Summer Institute for Science Teachers at Fermilab	Leon M. Lederman	255000	8470531 85
Greenville Col Greenville 62246 High Pressure Liquid Chromatography Equipment for A New Instrumental Methods Course	R. Ronald Richards Chemistry	8978	8551837 85
Illinois State Univ Normal 61761 Graduate Fellowship Support Grant		17100	8550729 85
Illinois State Univ Normal 61761 An Honors Workshop in Application, Problem Solving, and Computing	Carol A. Thornton Mathematics	130236	8470476 85
Lake Forest College Lake Forest 60045 Summer Institute in Computer Science for Secondary School Teachers	Lowell A. Carmony Mathematics	296235	8470637 85
New Trier High School Winnetka 60093 Presidential Award for Excellence in Science and Mathematics Teaching	Richard Rhoad Mathematics	5000	8554511 85
Northern Illinois Univ De Kalb 60115 Concept-Driven Strategies for Solving Story Problems in Mathematics	Larry K. Sowder Mathematics	60980	8550169 85
Northwestern University Evanston 60201 Graduate Fellowship Support Grant		273600	8550759 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Northwestern University Evanston 60201 Statistical Literacy: Project	Robert F. Boruch Ctr for Statistics & Prob	195106	8470044 85
Sangamon State Univ Springfield 62708 A Mass Spectrometry Data System for Undergraduate Laboratories	Gary L. Trammell Chemistry	7870	8551570 85
Southern Ill U-Carbondale Carbondale 62901 Graduate Fellowship Support Grant		17100	8550779 85
St Xavier College Chicago 60655 Creation of An Undergraduate Facility for Teaching Light Microscopy	Dale Fast Science	15307	8551827 85
Univ of Ill at Chicago Chicago 60680 A Computer Based Integrated Mathematics/Physical Science Program to Improve Problem Solving and Quantitative Skills in Elementary School	Howard S. Goldberg Physics	220909	8550376 85
Univ of Illinois-Urbana Urbana 61801 Graduate Fellowship Support Grant		499999	8550728 85
Univ of Illinois-Urbana Urbana 61801 Using Microcomputers in a Graphical, Functions-Oriented Approach to Topics in High School Algebra	Sharon Dugdale Computer-based Educ. Rsrc	128907	8470608 85
Univ of Illinois-Urbana Urbana 61801 A Longitudinal Study of the Acquisition of Science Concepts in Elementary School	Linda A. Meyer Ctr for Study of Reading	84968	8550320 85
Univ of Illinois-Urbana Urbana 61801 The Teaching and Learning of Mathematics in American Secondary Schools: a Symposium on the Findings of the Second International Mathematics Study	Kenneth J. Travers Secondary Education	4266	8470345 85

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STATE	INSTITUTION	CITY, ZIP	PROJECT DIRECTOR	DEPARTMENT	AWARD AMOUNT	GRANT NUMBER	FISCAL YEAR
	Univ of Illinois-Urbana	Urbana 61801	Kenneth J. Travers	Secondary Education	84834	8550138	85
	An Analysis of Classroom Processes Data from the Second International Mathematics Study						
	University of Chicago	Chicago 60637			581400	8550703	85
	Graduate Fellowship Support Grant						
	University of Chicago	Chicago 60637	Izaak Wirszup	Mathematics	159865	8470424	85
	Survey of Applied Soviet Research in School Mathematics Education						

INDIANA

Highland H.S.	Griffith 46319	Cheryl L. Mason	Science	5000	N/A	83
Presidential Award for Excellence in Science and Mathematics Teaching						
Ind U-Purdue U Indnpls	Indianapolis 46202			21800	8350053	83
Graduate Fellowship Support Grant						
Indiana Univ-Bloomington	Bloomington 47402			32790	8350051	83
Graduate Fellowship Support Grant						
North Side H.S.	Fort Wayne 46815	Robert D. Lovell	Mathematics	5000	N/A	83
Presidential Award for Excellence in Science and Mathematics Teaching						
Purdue University	West Lafayette 47907			35060	8350100	83
Graduate Fellowship Support Grant						
Purdue University	West Lafayette 47907	William K. Lebold	Freshman Engineering	55987	8307777	83
A Study of the Attributes of Successful Engineering Students						
U of Notre Dame	Notre Dame 46556			10900	8350086	83
Graduate Fellowship Support Grant						

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Ball State University Muncie 47306 Honors Workshop in Human Genetics and Bioethical Decision-Making for Outstanding Biology Teachers	Thomas R. Mertens Biology	58733	8319978 84
Elston H.S. Michigan City 46360 Presidential Award for Excellence in Science and Mathematics Teaching	Martha E. Hegg Mathematics	5000	8470728 84
Ind U-Purdue U Indnpls Indianapolis 46202 Graduate Fellowship Support Grant		15100	8450079 84
Indiana Univ-Bloomington Bloomington 47402 Graduate Fellowship Support Grant		52000	8450078 84
John Adams H.S. South Bend 46615 Presidential Award for Excellence in Science and Mathematics Teaching	Nevin E. Longenecker Science	5000	8470727 84
Purdue University West Lafayette 47907 Graduate Fellowship Support Grant		104000	8450121 84
Purdue University West Lafayette 47907 Residencies For Outstanding High School Mathematics and Science Teachers	James E. Bundschuh Science & Humanities	93170	8470197 84
Purdue University West Lafayette 47907 A Local and Regional Workshop in Geosciences for Middle and Junior High School Teachers	Gerald H. Krockover Education	122798	8470233 84
U of Notre Dame Notre Dame 46556 Graduate Fellowship Support Grant		13000	8450111 84
Ball State University Muncie 47306 National Honors Workshop in Human Genetics and Bioethical Decision-Making for Outstanding Biology Teachers	Thomas R. Mertens Biology	123470	8470541 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Columbus East H.S. Columbus 47201 Presidential Award for Excellence in Science and Mathematics Teaching	Carole R. Goshorn Science	5000	8554512 85
Concordia Lutheran H.S. Fort Wayne 46805 Presidential Award for Excellence in Science and Mathematics Teaching	Donald M. Luepke Mathematics	5000	8554513 85
Earlham College Richmond 47374 Instructional Use of UV/Visible and Infrared Spectrophotometers in Chemistry	Paul J. Ogren Chemistry	9700	8551567 85
Ind U-Purdue U Indnpls Indianapolis 46202 Graduate Fellowship Support Grant		34200	8550732 85
Indiana State University Terre Haute 47809 Graduate Fellowship Support Grant		17100	8550730 85
Indiana Univ-Bloomington Bloomington 47402 Graduate Fellowship Support Grant		85500	8550731 85
Indiana Univ-Bloomington Bloomington 47402 The Development and Testing of Inservice Materials for K-6 Science Teachers	Charles R. Barman Education	79678	8550034 85
Indiana Univ-Bloomington Bloomington 47402 Role of Metacognition in Mathematical Problem Solving	Frank K. Lester, Jr. Mathematics	69455	8550346 85
Purdue University West Lafayette 47907 Graduate Fellowship Support Grant		239400	8550770 85
Purdue University West Lafayette 47907 The Development of Primary Level Mathematics Curricula Emphasizing Child-Generated Thinking Strategies and Algorithms	Grayson H. Wheatley Education	381707	8470400 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Rose-Hulman Inst of Tech Terre Haute 47803 Equipping a Communication Systems Laboratory	B. J. Farbrother Electrical Engineering	50000	8551766 85
Rose-Hulman Inst of Tech Terre Haute 47803 Equipment for Undergraduate Program in Applied Optics	Brij M. Khorana Physics	27242	8551188 85
Tri-State University Angola 46703 Data Acquisition System for A Subsonic Wind Tunnel	William G. Meyers Aerospace Engineering	9074	8551366 85
IOWA			
Iowa St U of Sci & Tech Ames 50011 Graduate Fellowship Support Grant		65400	8350054 83
Nathan Weeks Trans H.S. Des Moines 50322 Presidential Award for Excellence in Science and Mathematics Teaching	Karen Murphy Science	5000	N/A 83
Sudlow Junior H.S. Davenport 52903 Presidential Award for Excellence in Science and Mathematics Teaching	Roger D. Fuerstenberg Mathematics	5000	N/A 83
University of Iowa Iowa City 52242 Graduate Fellowship Support Grant		10900	8350055 83
Ames Sr H.S. Ames 50010 Presidential Award for Excellence in Science and Mathematics Teaching	Kenneth A. Hartman Science	5000	8470729 84
Cedar Falls Sr H.S. Cedar Falls 50613 Presidential Award for Excellence in Science and Mathematics Teaching	Karen A. Dotseth Mathematics	5000	8470730 84
Iowa St U of Sci & Tech Ames 50011 Graduate Fellowship Support Grant		26000	8450080 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Iowa St U of Sci & Tech Ames 50011 Dissemination of Ideas and Materials for Assessing and Developing Coordinated K-6 Science Curricula	Gary E. Downs Elementary Education	116754	8470126 84
Univ of Iowa Iowa City 52242 Graduate Fellowship Support Grant		26000	8450081 84
Univ of Iowa Iowa City 52242 Geometry and Microcomputers	Keith D. Stroyan Mathematics	80420	8470264 84
Univ of Iowa Iowa City 52242 Honors Workshop for Teachers of Exemplary Science Programs	Robert Yager Science Education	321683	8317395 84
University of Iowa Iowa City 52242 Graduate Fellowship Support Grant		7175	8350055 84
Bettendorf High School Bettendorf 52722 Presidential Award for Excellence in Science and Mathematics Teaching	Donald A. Schaefer Science	5000	8554514 85
Central Univ of Iowa Pella 50219 Computer Science Laboratory for Operating Systems Course	Thomas P. Whaley Mathematics & Comp Sci	13103	8551243 85
Cornell Col Mount Vernon 52314 Scientific Equipment for Undergraduate Instruction in Chemistry	Addison Ault Chemistry	26444	8552314 85
Drake Univ Des Moines 50311 Equipping a Microcomputer Laboratory for Psychology	William D. Klipec Psychology	26522	8552168 85
Drake Univ Des Moines 50311 Equipment to Support A Large Undergraduate Research Program in Biology	Rodney A. Rogers Biology	31630	8551652 85
Grinnell Col Grinnell 50112 Nanosecond Transient Laser Spectrometer for the Physical Chemistry Laboratory	Luther Erickson Chemistry	23484	8552158 85

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STATE	INSTITUTION	CITY, ZIP	AWARD TITLE	PROJECT DIRECTOR	DEPARTMENT	AWARD AMOUNT	GRANT NUMBER	FISCAL YEAR
	Iowa St U of Sci & Tech	Ames 50011	Graduate Fellowship Support Grant			13790	8550733	85
	Luther College	Decorah 52101	Logic Analyzer, Gravity Meter, and Nuclear Physics Equipment for Advanced Physics Laboratories	Richard L. Kellogg	Physics	12660	8551523	85
	Mason City High School	Mason City 50401	Presidential Award for Excellence in Science and Mathematics Teaching	Tom Meskel	Mathematics	5000	8554515	85
	Univ of Iowa	Iowa City 52242	A Study of Uncertainties in the Meta-Analysis of Research on the Effectiveness of "New" Science Curricula	James A. Shymansky	Science Education Center	31395	8550470	85
	Univ of Iowa	Iowa City 52242	Honors Workshop for Teachers of Exemplary Science Programs	Robert Yager	Science Education	321683	8317395	85
	University of Iowa	Iowa City 52242	Graduate Fellowship Support Grant			34200	8550734	85
KANSAS								
	Kansas State University	Manhattan 66506	Graduate Fellowship Support Grant			10540	8350057	83
	Olpe High School	Emporia 66801	Presidential Award for Excellence in Science and Mathematics Teaching	Sharon K. Carnes	Mathematics	5000	N/A	83
	Shawnee Mission NW H.S.	Olathe 66061	Presidential Award for Excellence in Science and Mathematics Teaching	Wendell G. Mohlin	Science	5000	N/A	83
	U of Kansas	Lawrence 66045	Graduate Fellowship Support Grant			23130	8350058	83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Kansas State University Manhattan 66506 Graduate Fellowship Support Grant		13000	8450083 84
Kansas State University Manhattan 66506 A Novel Continuing Higher Education Science Updating Program For Kansas High School Science Teachers	John S. Eck Physics and Astronomy	84391	8319148 84
Shawnee Mission NW H.S. Shawnee 66216 Presidential Award for Excellence in Science and Mathematics Teaching	Beverly W. Nichols Mathematics	5000	8470732 84
Shawnee Mission West H.S. Shawnee Mission 66212 Presidential Award for Excellence in Science and Mathematics Teaching	Kenneth J. Bingman Science	5000	8470731 84
U of Kansas Lawrence 66045 Graduate Fellowship Support Grant		26000	8450084 84
Benedictine College Atchison 66002 Workshops for Pre-College Teachers in Science, Mathematics and Computer Science	Alfred D. Brothers Physics & Astronomy	285251	8470464 85
Bethany College Lindsborg 67456 Development of An Undergraduate Laboratory in Experimental Psychology	Raymond Russin Psychology	15000	8551675 85
Indian Trail Jr H.S. Olathe 66062 Presidential Award for Excellence in Science and Mathematics Teaching	Charlotte Keith Mathematics	5000	8554517 85
Kansas State University Manhattan 66506 Graduate Fellowship Support Grant		17100	8550736 85
Kansas State University Manhattan 66506 Video Materials Using Athletic Setting to Enhance Physics Teaching	John S. Eck Physics and Astronomy	202585	8550145 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Kansas State University Manhattan 66506 Kansas Outstanding Rural Science Teacher Project: of Recognition Now and Preparing for the Future	Larry G. Enochs Curriculum & Instruction	89150	8470338 85
Shawnee Mission H.S. Shawnee Mission 66207 Presidential Award for Excellence in Science and Mathematics Teaching	F. Gene Hampton Science	5000	8554516 85
St Mary College Leavenworth 66048 Demonstration Techniques for Science Education	Mary O'Rourke Chemistry	39127	8550128 85
U of Kansas Lawrence 66045 Graduate Fellowship Support Grant		51300	8550737 85
U of Kansas Lawrence 66045 Summer Workshop for Teachers of High School Physical Science	Gordon G. Wiseman Physics & Astronomy	65095	8470556 85
Wichita State University Wichita 67208 Science Short Courses for Elementary and Secondary Teachers	Barbara E. Bowman College of Engineering	186506	8470607 85

KENTUCKY

J.M. Atherton H.S. Louisville 40222 Presidential Award for Excellence in Science and Mathematics Teaching	Joanne H. Greaver Mathematics	5000	N/A 83
Univ of Kentucky Lexington 40506 Graduate Fellowship Support Grant		54500	8350060 83
Warren Central H.S. Bowling Green 42101 Presidential Award for Excellence in Science and Mathematics Teaching	Douglas C. Jenkins Science	5000	N/A 83
Bellarmino College Louisville 40205 Tropical Marine Biology and Ecology -- an Honors Workshop for High School Biology Teachers	James J. Dyar Biology	69192	8470094 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Calloway County H.S. Murray 42071 Presidential Award for Excellence in Science and Mathematics Teaching	Jane S. Sisk Science	5000	8470733 84
Southern Jr H.S. Lexington 40502 Presidential Award for Excellence in Science and Mathematics Teaching	Thomas R. Mowery Mathematics	5000	8470734 84
Univ of Kentucky Lexington 40506 Graduate Fellowship Support Grant		2725	8350060 84
Univ of Kentucky Lexington 40506 Graduate Fellowship Support Grant		39000	8450086 84
Centre Col of Kentucky Danville 40422 Microcomputer Interfaced Instrumentation for Animal Labs	Jack G. Thompson Psychology	10308	8551161 85
Centre Col of Kentucky Danville 40422 Laboratory Modernization for Centre College Physics Program	Paxton M. Wilt Physics	8980	8551175 85
Eastern Kentucky Univ Richmond 40475 Summer Institute for High School Science and Mathematics Teachers	Ted M. George Physics	52746	8470519 85
J M Atherton High School Louisville 40205 Presidential Award for Excellence in Science and Mathematics Teaching	Thomas R. Graviss Mathematics	5000	8554519 85
Murray State Univ Murray 42071 Upgrading of Chemical Instrumentation for an Improved Laboratory Program Stressing Computer-Based Techniques	Jeffrey E. Anderson Chemistry	22759	8551332 85
Murray State Univ Murray 42071 Regional Summer Workshop for High School Chemistry and Biology Teachers	Vaughn Vandegrift Biological Sciences	118083	8550120 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Murray State Univ Murray 42071 Regional Ecological-Resource Issue Infusion Project for Middle School Teachers	Trudi L. Volk Elementary & Secondary Ed	110766	8550005 85
Notre Dame Academy Covington 41011 Presidential Award for Excellence in Science and Mathematics Teaching	Mary E. Parrott Science	5000	8554518 85
Thomas More Col Crestview Hills 41017 Computerized Laboratories for Both General and Nuclear Physics	Jack Wells Physics	11500	8551255 85
Univ of Kentucky Lexington 40506 Graduate Fellowship Support Grant		17100	8550739 85
Univ of Kentucky Lexington 40506 The Development of a Computer Network for Dissemination of Project Outcomes from a Local and Regional Teacher Develop- ment Project for Mathematics Teachers in Kentucky	Donald Coleman Curriculum & Instruction	74991	8470236 85
Western Kentucky Univ Bowling Green 42101 Laboratory for Lasers, Optics and Electro-Optics	Dudley Bryant Physics & Astronomy	23500	8551627 85
Western Kentucky Univ Bowling Green 42101 Acquisition of Thermal Analysis and Electrochemical Instrumentation	John T. Riley Chemistry	21872	8551612 85

LOUISIANA

Green Oaks H.S. Shreveport 71104 Presidential Award for Excellence in Science and Mathematics Teaching	Jacques P. Treese Mathematics	5000	N/A 83
Louisiana State Univ Baton Rouge 70803 Graduate Fellowship Support Grant		21800	8350061 83

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Tulane University New Orleans 70118 Graduate Fellowship Support Grant		10900	8350130 83
University Lab School Baton Rouge 70809 Presidential Award for Excellence in Science and Mathematics Teaching	Gayle M. Ater Mathematics	5000	N/A 83
Louisiana State Univ Baton Rouge 70803 Graduate Fellowship Support Grant		13000	8450088 84
Riverdale H.S. Jefferson 70121 Presidential Award for Excellence in Science and Mathematics Teaching	Barbara I. Stott Mathematics	5000	8470736 84
West Monroe H.S. Monroe 71210 Presidential Award for Excellence in Science and Mathematics Teaching	Gary L. Stringer Science	5000	8470735 84
Catholic High School New Iberia 70560 Presidential Award for Excellence in Science and Mathematics Teaching	Donald J. Voorhies Mathematics	5000	8554521 85
Centenary College of La Shreveport 71104 Computer Enhanced Pre-Engineering Studies	Warren White Engineering & Physics	7414	8551338 85
La St Univ Baton Rouge Baton Rouge 70803 You, Me and Technology	Minaruth Galey Ed Administration	949187	8470164 85
Leesville High School Leesville 71446 Presidential Award for Excellence in Science and Mathematics Teaching	John Y. Dempsey Science	5000	8554520 85
Louisiana State Univ Baton Rouge 70803 Graduate Fellowship Support Grant		17100	8550741 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Louisiana State Univ Baton Rouge 70803 Recent Developments in Science and Technology with Applica- tions for Secondary School Teaching	William H. Leonard Zoology and Physiology	97628	8470493 85
Univ of New Orleans New Orleans 70148 Graduate Fellowship Support Grant		17100	8550677 85
Univ of SW Louisiana Lafayette 70504 Experimental Chemistry Kits for Grades K-6	Linda M. Woodward Chemistry	10420	8470555 85
Xavier University New Orleans 70125 Laboratory Equipment for Pre-Engineering Physics Program	Akundi A. Murty Physics/Engineering	10827	8552111 85

MAINE

Bangor H.S. Old Town 04468 Presidential Award for Excellence in Science and Mathematics Teaching	Wesley H. Hedlund Science	5000	N/A 83
Oxford Hills H.S. South Paris 04281 Presidential Award for Excellence in Science and Mathematics Teaching	Neil Tame Mathematics	5000	N/A 83
Univ of Maine Orono Orono 04473 Graduate Fellowship Support Grant		10900	8350062 83
Lincoln Academy Newcastle 04553 Presidential Award for Excellence in Science and Mathematics Teaching	Andrew W. Williamson, III Mathematics	5000	8470738 84
Univ of Maine Orono Orono 04473 Graduate Fellowship Support Grant		26000	8450089 84
Univ of Maine Orono Orono 04473 Mathematics and Science - Language, Communication and Problem Solving	Earl M. Beard Mathematics	29205	8319160 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Waterville H.S. Waterville 04901 Presidential Award for Excellence in Science and Mathematics Teaching	Jane Abbott Science	5000	8470737 84
Bates College Lewiston 04240 Gradient High Performance Liquid Chromatograph	Thomas J. Wenzel Chemistry	12582	8551126 85
Bowdoin College Brunswick 04011 Acquisition of a Spectrofluorometer for Student Research	Ronald L. Christensen Chemistry	20889	8551801 85
Colby College Waterville 04901 Undergraduate Instruction in Gas Chromatography-Mass Spectrometry	Gary Mabbott Chemistry and Geology	23052	8552183 85
Falmouth High School Falmouth 04105 Presidential Award for Excellence in Science and Mathematics Teaching	Herbert A. Hoppe Mathematics	5000	5454523 85
St Joseph's College North Windham 04062 Improvement of Teaching Laboratories and Student Research Using a UV-Visible Spectrophotometer	C. Jonathan Mitschele Chemistry	7195	8551858 85
Telstar Regional H.S. Bethel 04217 Presidential Award for Excellence in Science and Mathematics Teaching	Timothy M. Kersey Science	5000	8554522 85

MARYLAND

Forest Park Senior H.S. Baltimore 21239 Presidential Award for Excellence in Science and Mathematics Teaching	Andrea R. Bowen Science	5000	N/A 83
Gilman M S Towson 21204 Presidential Award for Excellence in Science and Mathematics Teaching	Ronald L. Culbertson Mathematics	5000	N/A 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Johns Hopkins University Baltimore 21218 Graduate Fellowship Support Grant		32700	8350056 83
Severn Graphics Inc Glen Burnie 21061 Graphic Arts Services	George Elchin	4000	8219560 83
Unif Servs U of Hlth Sci Bethesda 20014 Graduate Fellowship Support Grant		10900	8350125 83
Univ of Md College Park College Park 20742 Graduate Fellowship Support Grant		15000	8350063 83
Amer Assoc of Phys Tchrs College Park 20740 A Conference on Teacher Institutes and Workshops (Physics); Washington, D.C.; April 13-14, 1984	Jack M. Wilson Physics	20000	8470238 84
Johns Hopkins University Baltimore 21218 Graduate Fellowship Support Grant		286000	8450082 84
Middletown H.S. Middletown 21769 Presidential Award for Teaching	Paul H. Hummer, Jr. Science Excellence in Science and Mathematics	5000	8470739 84
Pocomoke H.S. Pocomoke City 21851 Presidential Award for Teaching	Carvel LaCurts Mathematics Excellence in Science and Mathematics	5000	8470740 84
Unif Servs U of Hlth Scis Bethesda 20014 Graduate Fellowship Support Grant		13000	8450140 84
Univ of Md College Park College Park 20742 Effects of Computer-Based Curricula in School Algebra	James T. Fey Education	454499	8470173 84
Amer Assoc of Phys Tchrs College Park 20740 Honors Workshop for Physics Teacher Resource Agents	Donald Kirwan Physics	477275	8470684 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Amer Assoc of Phys Tchrs College Park 20740 Conference on Teaching Modern Physics	Jack M. Wilson Physics	82026	8550610 85
Carroll Cty Pub Schools Westminster 21157 Elementary Science Honor Workshop Project	Brian L. Lockard Instruction	122713	8550135 85
Hands-on-Sci Outreach Rockville 20852 Piloting and Seeding the Hands-On-Science Afterschool Enrichment Program	Phyllis Katz Admin/Development	82590	8550183 85
Hereford Middle School Monkton 21111 Presidential Award for Excellence in Science and Mathematics Teaching	Penelope P. Booth Mathematics	5000	8554525 85
Johns Hopkins University Baltimore 21218 Graduate Fellowship Support Grant		410400	8550735 85
Johns Hopkins University Baltimore 21218 A Longitudinal Study of the Educational Patterns of High Achievers in the Sciences	Camilla P. Benbow Psychology	143011	8470387 85
MD Acad of Sciences Baltimore 21230 Workshops to Train Teachers in the Instruction of Gifted and Talented Students in Science and Math	Mary B. Hyman Education	136810	8550052 85
Montgomery Co Pub Schs Rockville 20850 An Investigation of the Factors Related to Mathematics Course Enrollment For Senior High School Students	Susan Gross Ed Accountability	125455	8470384 85
Natl Aquarium - Baltimore Baltimore 21202 Development and Dissemination of Upper Elementary Curriculum Unit in Aquatic and Marine Science, "Living in Water"	Valerie C. Chase Education	88143	8470190 85
Severn Graphics Inc Glen Burnie 21061 Graphic Arts Services	George Elchin	17000	8219560 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Towson State Univ Towson 21204 Creation of a Microcomputer Laboratory in Mathematics	E. Sharon Jones Mathematics	25366	8551368 85
Towson State Univ Towson 21204 Macintosh Pascal for Structured Programming and Data Structures	Charles J. Schmitt Computer & Info Sciences	22900	8552163 85
Univ of Md College Park College Park 20742 Graduate Fellowship Support Grant		51300	8550743 85
Univ of Md College Park College Park 20742 Research Participation and Leadership Training for Chemistry Teachers	Paul H. Mazzocchi Chemistry	66777	8470169 85
Univ of Md College Park College Park 20742 The Impact of Computer Weather Graphics on Pre-College Science and Technology Education	Owen E. Thompson Meteorology	15000	8511424 85
Univ of Md Eastern Shore Princess Anne 21853 Upgrading of Honors and Engineering Physics Laboratories	Gurbax Singh Natural Sciences	26600	8552069 85
Western High School Baltimore 21209 Presidential Award for Excellence in Science and Mathematics Teaching	Anne S. George Science	5000	8554524 85

MASSACHUSETTS

Boston University Boston 02118 Graduate Fellowship Support Grant		20700	8350005 83
Harvard University Cambridge 02138 Graduate Fellowship Support Grant		5938	8264113 83
Harvard University Cambridge 02138 Graduate Fellowship Support Grant		1286200	8350045 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Mass Inst of Tech Cambridge 02139 Graduate Fellowship Support Grant		1994700	8350064 83
Medway Junior-Senior H.S. Foxborough 02035 Presidential Award for Excellence in Science and Mathematics Teaching	Margaret M. Bondorew Mathematics	5000	N/A 83
Univ of Mass Amherst Amherst 01003 Graduate Fellowship Support Grant		65400	8350065 83
Westfield H.S. E. Falmouth 02536 Presidential Award for Excellence in Science and Mathematics Teaching	Margaret B. Andersen Science	5000	N/A 83
Amer Meteorological Soc Boston 02101 Planning Conference on Meteorology Education; College Park, Maryland; September 1984	Kenneth C. Spengler Executive Director	19000	8470360 84
Bolt Beranek & Newman Cambridge 02101 A Proposal to Develop Computer Activities For Teaching Physics	Paul Horwitz Information Sciences Divi	366554	8400280 84
Boston College Chestnut Hill 02167 A Model for a Cooperative Retraining Program for Physics and/or Physical Science Teachers	George T. Ladd Education	25200	8317396 84
Boston University Boston 02118 Graduate Fellowship Support Grant		12000	8350005 84
Boston University Boston 02118 Graduate Fellowship Support Grant		26000	8450034 84
Boston University Boston 02118 Boston University Science Fellows Program	Gerald L. Abegg Science Education	142085	8470185 84

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Boston University Boston 02118 Conference on Science Education in a High Technology Society, Boston, Massachusetts, April 1-4, 1984	Albert G. Medvitz Division of Science	50395	8319152 84
Bridgewater State Coll Bridgewater 02324 Honors Workshops for Elementary School Teachers	Robert F. Boutilier Science & Mathematics	23923	8318551 84
Bridgewater State Coll Bridgewater 02324 Regional Workshop for Junior High School Science Teachers.	Robert Dillman Science & Mathematics	150502	8470271 84
Canton H.S. Canton 02021 Presidential Award for Excellence in Science and Mathematics Teaching	Martin J. Badoian Mathematics	5000	8470742 84
Childrens Museum-Boston Boston 02210 Interactive Exhibits on Ancient Technology and Modern Technology	Elaine H. Gurian Exhibit Center	366406	8318289 84
Comap Lexington 02173 High School Mathematics and Its Applications Project	Solomon Garfunkel Mathematics	673100	8318104 84
Harvard University Cambridge 02138 Graduate Fellowship Support Grant		10900	8450000 84
Harvard University Cambridge 02138 Graduate Fellowship Support Grant		1300000	8450074 84
Harvard University Cambridge 02138 Children's Assessment of Evidence of Truth Value	Ellen Winner Grad. School of Ed.	144734	8407366 84
Mass Inst of Tech Cambridge 02139 Graduate Fellowship Support Grant		2197000	8450090 84
Mass Inst of Tech Cambridge 02139 Inductive Inference: A Tool For Investigating Knowledge Acquisition and Reorganization	Susan Carey Psychology	59838	8410740 84

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Newman Middle School Needham 02192 Presidential Award for Excellence in Science and Mathematics Teaching	Joreen V. Piotrowski Science	5000	8470741 84
Simmons College Boston 02115 Resource Partnerships Serving Precollege Science Teachers in the Northeastern United States	Kathleen Dunn Chemistry	209135	8316286 84
Smith College Northampton 01063 Shaping Space: a Geometry Curriculum Project For Grades 10 and 11	Marjorie Senechal Mathematics	27196	8400339 84
Technical Ed Res Ctr Inc Cambridge 02139 Development of Microcomputer-Based Laboratory Instructional Materials	Robert F. Tinker Technology Center	928004	8319155 84
Univ of Mass Amherst Amherst 01003 Graduate Fellowship Support Grant		54000	8450091 84
Assumption College Worcester 01609 Computer Interfacing and Modeling in Science Laboratories	Thomas Slavkovsky Natural Science & Math	8493	8551779 85
Bolt Beranek & Newman Cambridge 02101 Cognition, Computers, and Statistics: Software Tools for Curriculum Design	John A. Swets Comp & Information Sci	419358	8550103 85
Boston University Boston 02118 Graduate Fellowship Support Grant		18400	8550686 85
Buckingham/Nicholas H.S. Cambridge 02138 Presidential Award for Excellence in Science and Mathematics Teaching	Anne E. Smith Mathematics	5000	8554527 85
Childrens Museum-Boston Boston 02210 Guessing, ESTIMATING, Counting, - a Travelling Exhibition	Elaine H. Gurian Exhibit Center	50000	8550519 85

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Col of the Holy Cross Worcester 01610 Computer Graphics in Mathematics Education	Melvin C. Tews Mathematics	16242	8551683 85
Emmanuel College Boston 02115 Equipment to Establish An Undergraduate Radioisotope Laboratory for Teaching Biology, Chemistry and Biochemistry	Dorothy M. Higgins Chemistry	45018	8552009 85
Harvard Univ-Med Sch Boston 02115 Graduate Fellowship Support Grant		51300	8550724 85
Harvard Univ-Observatory Cambridge 02138 Science Teaching Through Its Astronomical Roots: A Proposal to Use Astronomy to Teach Precollege Science and Mathematics	Irwin I. Shapiro Observatory	446893	8550297 85
Harvard University Cambridge 02138 Graduate Fellowship Support Grant		1539000	8550725 85
Harvard University Cambridge 02138 Regional Network for Mathematics Education	Katherine K. Merseth Curriculum & Learning	535682	8470399 85
Lesley College Cambridge 02138 Intelligent LOGO Tools for Algebraic Problem Solving	Nancy Roberts Technology Center	317086	8400328 85
Lexington High School Lexington 02173 Presidential Award for Excellence in Science and Mathematics Teaching	David J. Olney Science	5000	8554526 85
Mass Inst of Tech Cambridge 02139 Graduate Fellowship Support Grant		2986060	8550744 85
Mass Inst of Tech Cambridge 02139 An Educational Computing Environment for 1990	Andrea A. V. diSessa Physics and Mathematics	277858	8470557 85
Merrimack College North Andover 01845 Microcomputer Interfacing, Control, and Data Acquisition	Daniel E. Farmer Elec./Computer Eng.	17829	8552013 85

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Mt Holyoke Col South Hadley 01075 Improvement of an Undergraduate Ecology Curriculum	Lesley Lovett-Doust Biological Sciences	49915	8551619 85
Mt Holyoke Col South Hadley 01075 Equipment to Support A Microcomputer-Based Laboratory in Experimental Psychology	Will Millard Psychology	26093	8551987 85
Museum of Science Boston 02101 Curricular Materials for Traveling Exhibitions	Victor J. Danilov President	103500	8470678 85
Public Broadcasting Assn Newton 02158 Testing for Truth: A Television Series on Investigation of the Scientific Method	Michael J. Ambrosino	125000	8470604 85
Simmons College Boston 02115 Resource Partnerships in the Life Sciences	Richard P. Nickerson Biology	19749	8470660 85
Simmons College Boston 02115 The Introduction of a Computer-Controlled Gas Chromatograph/ Mass Spectrometer System into the Chemistry Curriculum	James U. Piper Chemistry	35395	8551129 85
Smith College Northampton 01063 An Energy-Dispersive X-ray Spectrometer and Luminoscope for Analytical Petrography	John B. Brady Geology	43667	8551751 85
Smith College Northampton 01063 Microcomputer-Controlled UV-Visible Spectrophotometer	Charles C. Levin Chemistry	10326	8551504 85
Southeastern Mass Univ North Dartmouth 02747 Development of An Electrical Material Science Laboratory	Robert H. Caverly Electrical & Computer Eng	11478	8551100 85
Southeastern Mass Univ North Dartmouth 02747 Training College Students to Use Mathematics: Eliminating Errors in Mapping from Natural Representational Systems to the Abstract Symbol Systems of Mathematics	Judith E. Sims-Knight Psychology	113791	8410316 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Technical Ed Res Ctr Inc Cambridge 02139 Development of Microcomputer-Based Laboratory Instructional Materials	Robert F. Tinker Technology Center	17220	8319155 85
Univ of Mass Amherst Amherst 01003 Graduate Fellowship Support Grant		59430	8550745 85
Univ of Mass Amherst Amherst 01003 An Investigation of Methods for Overcoming Conceptual Difficulties in Science	John J. Clement Physics & Astronomy	314379	8470579 85
Univ of Mass Amherst Amherst 01003 Computer Assisted Mathematics For Secondary Education	Jon L. Sicks	494838	8470260 85
Univ of Mass Boston Boston 02125 Pascal and Computer Science: a Training Course For Pre-College Honors Teachers	Joel Blair Mathematics	31890	8470107 85
Wellesley Col Wellesley 02181 Introduction of Fourier Transform Infrared Spectroscopy in Undergraduate Chemistry Curriculum	William F. Coleman Chemistry	28470	8551903 85
Western New England Col Springfield 01119 Modern Materials Testing System	Henry L. Sundberg, Jr. Mechanical Engineering	32773	8551578 85
Williams College Williamstown 01267 Microcomputer Equipment to Support a New Cognition and Experimental Psychology Laboratory	Colleen M. Kelley Psychology	5875	8551474 85
Williams College Williamstown 01267 Instrumentation for Undergraduate Laboratories in Molecular Biology	Michael A. Lynes Biology	19781	8551954 85
Williams College Williamstown 01267 Instruction in Laser Raman Spectroscopy	John J. McMahon Chemistry	13200	8551158 85

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MICHIGAN			
Huron H S Ann Arbor 48103 Presidential Award for Excellence in Science and Mathematics Teaching	Walter Scheider Science	5000	N/A 83
Huron H.S. Ann Arbor 48105 Presidential Award for Excellence in Science and Mathematics Teaching	Patricia R. Frazee Mathematics	5000	N/A 83
Michigan State Univ East Lansing 48824 Graduate Fellowship Support Grant		119900	8350068 83
Univ of Mich-Ann Arbor Ann Arbor 48109 Graduate Fellowship Support Grant		359700	8350069 83
Wayne State University Detroit 48202 Graduate Fellowship Support Grant		21800	8350140 83
Central Mich Univ Mount Pleasant 48858 Summer Research Participation for Middle School Science Teachers	Claudia B. Douglass Biology	65000	8470114 84
Eastern Michigan Univ Ypsilanti 48197 SERAPHIM High School Outreach Project	John W. Moore Chemistry	605751	8400351 84
Hope College Holland 49423 Summer Honors Workshop at Hope College For Teachers of Advanced Placement and Second Year High School Chemistry	Eugene C. Jekel Chemistry	55119	8400357 84
Impression 5 Museum Lansing 48933 Interfacing to the "Real" World	John Wade Education	222273	8318128 84
Mich Technological Univ Houghton 49931 Honors Workshop on Microcomputer Applications in Science And Mathematics	William Yaroch Biological Sciences	64478	8470098 84

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Michigan State Univ East Lansing 48824 Graduate Fellowship Support Grant		117000	8450093 84
Michigan State Univ East Lansing 48824 Honors Workshop for Middle Grade Mathematics Teachers	William M. Fitzgerald Mathematics	64917	8317063 84
Oakland Univ Rochester 48063 Physics Demonstrations and Equipment	Robert M. Williamson Physics	75219	8470359 84
Renaissance H.S. Detroit 48235 Presidential Award for Excellence in Science and Mathematics Teaching	Timothy V. Craine Mathematics	5000	8470744 84
Richmond H.S. Richmond 48062 Presidential Award for Excellence in Science and Mathematics Teaching	Juliana Texley Science	5000	8470743 84
Univ of Mich-Ann Arbor Ann Arbor 48109 Graduate Fellowship Support Grant		426000	8450094 84
Univ of Mich-Ann Arbor Ann Arbor 48109 Collaborative Research on Comparative Rule Systems: Japanese and American Schools	Phyllis Blumenfeld Sch of Education	28063	8415017 84
Univ of Mich-Ann Arbor Ann Arbor 48109 Training For Formal Vs. Pragmatic Approaches to Reasoning	Keith J. Holyoak Psychology	46058	8409198 84
Univ of Mich-Ann Arbor Ann Arbor 48109 Mathematics Achievement: Japanese, Chinese, and American Children	Harold W. Stevenson	218177	8409372 84
Wayne State University Detroit 48202 Graduate Fellowship Support Grant		13000	8450149 84
Wayne State University Detroit 48202 Collaborative Research on Comparative Rule Systems: Japanese and American Schools	V. L. Hamilton Sociology	71664	8410680 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Wayne State University Detroit 48202 Honors Workshop for Precollege Teachers of Physics	Patrick F. Kenealy Physics	82617	8317913 84
Wayne State University Detroit 48202 A Model for Teacher Training and Materials Development Using Laboratory Activities, Demonstrations, and Teacher Produced Videotapes	Patrick F. Kenealy Physics	79600	8319713 84
Alma College Alma 48801 Acquisition of Fluorescence and Nomarski Differential Inter- ference Contrast Microscopy Capability for Undergraduate Microbiology and Immunology Laboratories	Richard A. Roeper Biology	15325	8551960 85
Calvin College Grand Rapids 49506 Equipment for Teaching Undergraduate Physiological Ecology	John D. Beebe Biology	19950	8551841 85
Central Mich Univ Mount Pleasant 48859 High Resolution Computer Graphics and Image Processing Facility	John C. Hansen Computer Science	14612	8552113 85
Central Mich Univ Mount Pleasant 48859 Equipment to Introduce Computer-Assisted Geographic Information Systems into the Undergraduate Curriculum	Leroy R. Klopacic Geography	5675	8551819 85
Det Area Pre-Col Eng Pro Detroit 48202 Pre-Engineering Curriculum Guide and Supplemental Mathematics Materials Development	Kenneth Hill	174314	8550030 85
Eastern Michigan Univ Ypsilanti 48197 Microcomputers for Use in A Model Program for Teaching Environmental Biology to Prospective Pre-College Teachers	Robert K. Neely Biology	9763	8551206 85
Fraser High School Fraser 48026 Presidential Award for Excellence in Science and Mathematics Teaching	Robert E. Peterson Mathematics	5000	8554529 85

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Grand Valley St Colleges Allendale 49401 A Revised Program of Laboratory Instruction Incorporating Mass Spectrometry	Gary Richmond Chemistry	17900	8551115 85
Hope College Holland 49423 Use of Computer Graphics in Undergraduate Chemistry and Physics Curriculum: Purchase of Graphics Terminals and Printer	Donald M. Friedrich Chemistry	26011	8551798 85
Hope College Holland 49423 Summer Honors Workshop for Teachers of High School Chemistry	Eugene C. Jekel Chemistry	118244	8550019 85
Hope College Holland 49423 Incorporation of High Performance Liquid Chromatography into the Chemistry Curriculum	Michael D. Seymour Chemistry	8194	8551669 85
Impression 5 Museum Lansing 48933 Exhibit Research Collaborative	Michael Hannon Research	301500	8550266 85
Kalamazoo Col Kalamazoo 49007 Computer/Videodisc Systems for Open Physics Laboratories	David M. Winch Physics	6875	8551007 85
Mich Technological Univ Houghton 49931 Copper Country Mathematics and Computer Science Teachers Workshop	Beverly J. Gimmestad Mathematics	25254	8470653 85
Michigan State Univ East Lansing 48824 Graduate Fellowship Support Grant		188100	8550746 85
Michigan State Univ East Lansing 48824 Middle Grades Mathematics Project	Glenda Lappan Mathematics	201319	8318218 85
Michigan State Univ East Lansing 48824 Printing and Distribution of Science Career Magazine	Charles C. Sweeley Biochem & Natural Science	25350	8550457 85

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Renaissance H.S. Detroit 48235 Presidential Award for Excellence in Science and Mathematics Teaching	Frank E. Pavia Science	5000	8554528 85
Univ of Mich-Ann Arbor Ann Arbor 48109 Graduate Fellowship Support Grant		649800	8550747 85
Univ of Mich-Ann Arbor Ann Arbor 48109 Mastery Orientation Toward Learning Science in Elementary Schools	Phyllis Blumenfeld Sch of Education	109622	8550437 85
Univ of Mich-Ann Arbor Ann Arbor 48109 Honors Workshop for Secondary School Biology Teachers	David M. Gates Biological Station	132049	8550141 85
Univ of Mich-Ann Arbor Ann Arbor 48109 Critical Synthesis of Factors in Science Teaching and Learning Using Instructional Technology	James A. Kulik Ctr for Res on Learning	144050	8470258 85
Wayne State University Detroit 48202 Graduate Fellowship Support Grant		23300	8550797 85
MINNESOTA			
Mayo Medical School Rochester 55901 Graduate Fellowship Support Grant		10900	8350079 83
North Community H.S. Fridley 55432 Presidential Award for Excellence in Science and Mathematics Teaching	Larry Luck Mathematics	5000	N/A 83
Stillwater H.S. Stillwater 55082 Presidential Award for Excellence in Science and Mathematics Teaching	J. B. Baurder Science	5000	N/A 83
University of Minnesota Minneapolis 55455 Graduate Fellowship Support Grant		152600	8350070 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Bemidji State University Bemidji 56601 An Enrichment Program in Physical Science and Computer Science for Elementary and Middle School Teachers	Gerald J. Smith Physics	72243	8470333 84
Burnsville Sr H.S. Burnsville 55337 Presidential Award for Excellence in Science and Mathematics Teaching	Richard A. Hanson Mathematics	5000	8470746 84
Mankato State University Mankato 56001 Honors Workshop in Biotechnology Research For High School Teachers	John E. Frey Biological Sciences	274330	8470097 84
Mayo Medical School Rochester 55901 Graduate Fellowship Support Grant		13000	8450092 84
The Blake School Minneapolis 55407 Presidential Award for Excellence in Science and Mathematics Teaching	Daniel D. Danielsen Science	5000	8470745 84
University of Minnesota Minneapolis 55455 Graduate Fellowship Support Grant		312000	8450095 84
University of Minnesota Minneapolis 55455 Summer Workshop and Research Experience for Honored Physics Teachers	Russell K. Hobbie	195162	8470071 84
University of Minnesota Minneapolis 55455 The Role of Rational Number Concepts in the Development of Proportional Reasoning Skills	Thomas R. Post Curriculum & Instruction	718325	8470077 84
Assoc Col of Twin Cities Saint Paul 55105 Equipment to Upgrade the Associated Colleges of the Twin Cities (ACTC) Center for Electron Microscopy and Undergraduate Research	Russell A. Whitehead Biology	50000	8552182 85
Bemidji State University Bemidji 56601 Retraining Program in Physical Science and Mathematics for Experienced Teachers	Duane L. Sea Physics	357585	8470304 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Benilde-St Margaret's HS Saint Louis Par55410 Presidential Award for Excellence in Science and Mathematics Teaching	Mary J. Aiken Mathematics	5000	8554531 85
Carleton College Northfield 55057 Mechanisms and Kinetics in Sophomore Organic Chemistry by Gas-Liquid Chromatographic Analysis	Charles H. Carlin Chemistry	14975	8551941 85
Carleton College Northfield 55057 A New Transmission Electron Microscope (TEM) for Teaching Biology	Gerry J. Hill Biology	50000	8551843 85
Carleton College Northfield 55057 Graphics-Based Development/Application System for Computer Integrated Education	William J. Titus Physics/Astronomy	50000	8551218 85
Col of St Thomas Saint Paul 55105 New Directions in Secondary Mathematics: A Regional Institute for Teachers in Grades 9 Through 12	John T. Kemper Mathematics	106549	8550068 85
Concordia Col Moorhead Moorhead 56560 Curriculum Enhancement Utilizing Chemical Instrumentation	Karl E. Dierenfeldt Chemistry	23400	8551483 85
Concordia Col Moorhead Moorhead 56560 High Resolution Gamma Ray Spectroscopy and Analysis	Darold J. Frantsvog Physics	11910	8551630 85
Gustavus Adolphus Col Saint Peter 56082 A Microcomputer Network for Biology, Chemistry, and Physics	Peter B. Worland Computer Center	32825	8551746 85
Macalester Col Saint Paul 55105 The Minnesota World Regional Geography Course Project	David A. Lanegran Geography	73879	8470674 85
Macalester Col Saint Paul 55105 Weather Satellite System Connection and Video Facsimile Display System	Howard W. Mielke Geography	7572	8552083 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Macalester Col Saint Paul 55105 Equipment for Undergraduate Laboratory Studies of Genetic Engineering	Kathleen A. Parson Biology	19649	8552086 85
Macalester Col Saint Paul 55105 Improvement of Chemistry Instruction Through Applications of High Performance Liquid Chromatography	Fred B. Stocker Chemistry	15540	8552085 85
Macalester Col Saint Paul 55105 X-ray Diffractometer and Energy-Dispersive Analyzer for Analytical Skills Improvement Program	Gerald F. Webers Geology	40985	8551729 85
St John's University Collegeville 56321 Experimental Basis of Chirality in Undergraduate Education	John B. Klassen Chemistry	8477	8552284 85
St Louis Park Sr H.S. Saint Louis Par55426 Presidential Award for Excellence in Science and Mathematics Teaching	Doris E. Johnson Science	5000	8554530 85
St Mary's College Winona 55987 Instrumentation for Contemporary Macromolecular Biology in an Undergraduate Biology Program	Richard V. Kowles	26981	8551804 85
St Olaf College Northfield 55057 The Integration of Gas Chromatography/Mass Spectrometry into the Chemistry Curriculum	Wesley A. Pearson Chemistry	32777	8551452 85
Univ of Minn at Morris Morris 56267 Student Research Program Enhancement: Development of Optical Microscopy Expertise	James F. Cotter Div of Science & Math	23400	8552157 85
University of Minnesota Minneapolis 55455 Graduate Fellowship Support Grant		410400	8550748 85
University of Minnesota Minneapolis 55455 Summer Workshop and Research Experience for Honored Physics Teachers	Russell K. Hobbie	6160	8470071 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
University of Minnesota Minneapolis 55455 A Model for Mathematicians to Impact Precollegiate Mathematics	Harvey B. Keynes School of Mathematics	201288	8470365 85

MISSISSIPPI

Columbia H.S. Hattiesburg 39401 Presidential Award for Excellence in Science and Mathematics Teaching	Catherine P. Cotten Mathematics	5000	N/A 83
Pascagoula H.S. Gautier 39567 Presidential Award for Excellence in Science and Mathematics Teaching	Bess Moffatt Science	5000	N/A 83
Univ of Miss Medical Ctr Jackson 39216 Graduate Fellowship Support Grant		10900	8350071 83
Bay Springs H.S. Bay Springs 39422 Presidential Award for Excellence in Science and Mathematics Teaching	Mary K. Sims Mathematics	5000	8470748 84
Biloxi H.S. Biloxi 39530 Presidential Award for Excellence in Science and Mathematics Teaching	Della M. McCaughan Science	5000	8470747 84
Univ of Southern Miss Hattiesburg 39406 A Workshop to Produce Materials and Develop Methods For Statewide Improvements in Chemical Education in Mississippi High Schools	John H. Bedenbaugh Chemistry	80308	8470138 84
Univ of Southern Miss Hattiesburg 39406 Laboratory Based High School Chemistry Instruction	J. Emory Howell Chemistry	290412	8470135 84
Millsaps College Jackson 39210 Improved Instrumentation for Organic and Analytical Chemistry Laboratories	Roy A. Berry, Jr Chemistry	18650	8552175 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Oak Grove High School Hattiesburg 39401 Presidential Award for Excellence in Science and Mathematics Teaching	Elizabeth P. Harrison Mathematics	5000	8554533 85
Rust College Holly Springs 38635 Chemistry Learning Package Development Workshop	Leroy Frazier Mathematics	35938	8470533 85
Starkville High School Starkville 39759 Presidential Award for Excellence in Science and Mathematics Teaching	Jane W. Lusk Science	5000	8554532 85
Univ of Southern Miss Hattiesburg 39406 Teaching Experimenting to Mississippi Teachers (TEMT)	Lawrence J. Bellipanni Science Education	67220	8550129 85
Univ of Southern Miss Hattiesburg 39406 Mathematics Refresher and Enrichment Through Applications Courses for Honors Teachers Project (M-REACH Teachers Project)	Nancy C. Dunigan Mathematics	145957	8550167 85
University of Mississippi University 38677 Graduate Fellowship Support Grant		17100	8550749 85
MISSOURI			
Rolla Senior H.S. Rolla 65401 Presidential Award for Excellence in Science and Mathematics Teaching	Bill M. Brent Science	5000	N/A 83
Univ of Missouri-Columbia Columbia 65201 Graduate Fellowship Support Grant		10900	8350072 83
Univ of Missouri-Rolla Rolla 65211 Graduate Fellowship Support Grant		10900	8350073 83
Washington University Saint Louis 63130 Graduate Fellowship Support Grant		85600	8350137 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Wentzville H.S. O'Fallon 63366 Presidential Award for Excellence in Science and Mathematics Teaching	Akehiko Takahashi Mathematics	5000	N/A 83
Clayton H.S. Clayton 63105 Presidential Award for Excellence in Science and Mathematics Teaching	Frank S. Quiring Science	5000	8470749 84
Rolla Senior H.S. Rolla 65401 Presidential Award for Excellence in Science and Mathematics Teaching	Donnie W. Priest Mathematics	5000	8470750 84
Univ of Missouri-Columbia Columbia 65201 Using Technology to Develop a Basic Computational Skill -- Computational Estimation	Robert E. Reys Curriculum & Instruction	198949	8470030 84
Univ of Missouri-Columbia Columbia 65201 Graduate Fellowship Support Grant		13000	8450096 84
Univ of Missouri-Rolla Rolla 65211 Graduate Fellowship Support Grant		26000	8450097 84
Washington University Saint Louis 63130 Graduate Fellowship Support Grant		104000	8450146 84
Central High School Saint Joseph 64501 Presidential Award for Excellence in Science and Mathematics Teaching	Charles W. McLaughlin Science	5000	8554534 85
Central Missouri St Univ Warrensburg 64093 Teachers, Industry and Environment	Neal J. Holmes Chemistry, Physics & Sci	15770	8470538 85
Northeast Mo State Univ Kirksville 63501 Laboratory Improvement in General Biology, Cell Biology, and Undergraduate Research Areas	Michael L. Lockhart Biology	46768	8551222 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Northeast Mo State Univ Kirksville 63501 Workshop in Air and Space Science for Elementary Teachers	Dean A. Rosebery Science Division	48578	8470586 85
Parkway Central H.S. Chesterfield 63017 Presidential Award for Excellence in Science and Mathematics Teaching	Robert Buss Mathematics	5000	8554535 85
Southeast Mo State Univ Cape Girardeau 63701 K-6 Science and Mathematics Improvement, Southeast Missouri	Edward C. Stoeber, Jr. Science & Mathematics Ed	475043	8470581 85
Southwest Mo State Univ Springfield 65804 Equipment for Outfitting An Undergraduate Communications Laboratory for Teaching the Physiology and Acoustics of Speech and Hearing	Roger L. Towne Communications Disorders	37314	8552022 85
St Louis University Saint Louis 63103 A Science Education Resource Institute	James F. McGee Physics	82790	8470591 85
Univ of Missouri-Columbia Columbia 65201 Naturalistic and Experimental Study of Mathematical Problem Solving in Secondary Schools	Douglas A. Grouws Curriculum & Instruction	178746	8470265 85
Univ of Missouri-Columbia Columbia 65201 Graduate Fellowship Support Grant		7850	8450096 85
Univ of Missouri-Columbia Columbia 65201 Graduate Fellowship Support Grant		34200	8550750 85
Washington University Saint Louis 63130 Graduate Fellowship Support Grant		153900	8550794 85
William Jewell Col Liberty 64068 Undergraduate Gamma Spectrometry and Multichannel Analysis	Charles D. Geilker Physics	5133	8551989 85

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STATE	PROJECT DIRECTOR	AWARD	GRANT NUMBER
INSTITUTION	DEPARTMENT	AMOUNT	FISCAL YEAR
CITY, ZIP			
AWARD TITLE			

MONTANA

North Junior H.S. Great Falls 59404	Glenda M. Tinsley Mathematics	5000	N/A 83
Presidential Award for Excellence in Science and Mathematics Teaching			
St. Ignatius H.S. St. Ignatius 59865	Herbert J. York Science	5000	N/A 83
Presidential Award for Excellence in Science and Mathematics Teaching			
Columbus Jr-Sr H.S. Columbus 59019	James Williamson Mathematics	5000	8470752 84
Presidential Award for Excellence in Science and Mathematics Teaching			
Montana State University Bozeman 59715	Rockford J. Ross Elec Engineering/Comp Sci	17135	8320677 84
A Dynamic Library of Programming Language Examples			
Sentinel H.S. Missoula 59801	Jim Cusker Science	5000	8470751 84
Presidential Award for Excellence in Science and Mathematics Teaching			
University of Montana Missoula 59812		7120	8450098 84
Graduate Fellowship Support Grant			
Helena High School Helena 59601	Kenneth W. Price Science	5000	8554536 85
Presidential Award for Excellence in Science and Mathematics Teaching			
Libby High School Libby 59923	William Chalgren Mathematics	5000	8554537 85
Presidential Award for Excellence in Science and Mathematics Teaching			
Mont Col Min Sci&Tech Fd Butte 59701	William R. Sill Physics and Geophys Eng	9742	8551081 85
Upgrading the Geophysical Instrument Program at Montana College of Mineral Science and Technology			

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Mont Univ Sys Office Helena 59601 Excellence for Montana Mathematics Education	Daniel T. Dolan Mathematics	174338	8470543 85

NEBRASKA

Lincoln NW H.S. Lincoln 68507 Presidential Award for Excellence in Science and Mathematics Teaching	Buren G. Thomas Mathematics	5000	N/A 83
Northwest Senior H.S. Omaha 68134 Presidential Award for Excellence in Science and Mathematics Teaching	John J. Skrocky Science	5000	N/A 83
Univ of Nebraska-Lincoln Lincoln 685880430 Graduate Fellowship Support Grant		10900	8350076 83
Kearney State Col Kearney 68847 Regional Junior High School Teacher Development in Science	Marvin C. Williams Physics	86314	8470115 84
Lewis and Clark Jr H.S. Omaha 68132 Presidential Award for Excellence in Science and Mathematics Teaching	Ronald J. Cisar Science	5000	8470753 84
Univ of Nebraska-Lincoln Lincoln 685880430 Graduate Fellowship Support Grant		26000	8450100 84
Westside H.S. Omaha 68114 Presidential Award for Excellence in Science and Mathematics Teaching	Alvin A. Gloor Mathematics	5000	8470754 84
Chadron St Col Chadron 69337 A New Star Projector for the Planetarium at Chadron State College	M. Lois Veath Physics	25000	8551667 85
Concordia Tchrs Col Seward 68434 Elementary and Advanced Laboratory Equipment for a Program Serving Pre-college Teachers of Physics	Gilbert H. Daenzer Physics	17183	8551208 85

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STATE	INSTITUTION CITY, ZIP	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
	Creighton University Omaha 68178	David P. Maloney Physics	93022	8410567 85
		Investigation of Student Strategies in Physics		
	Kearney State Col Kearney 68847	Roger L. Carlson Physics	119405	8470680 85
		Materials Development for Junior High School Science Teachers		
	Lincoln High School Lincoln 68510	Patience O. Fisher Mathematics	5000	8554539 85
		Presidential Award for Excellence in Science and Mathematics Teaching		
	Nebraska Wesleyan Univ Lincoln 68504	William E. Boernke Biology	20685	8551365 85
		Instrumentation to Improve Undergraduate Cellular and Molecular Biology Laboratories		
	Nebraska Wesleyan Univ Lincoln 68504	Daniel B. Howell Chemistry	13849	8552072 85
		Modernization of Infrared and Ultraviolet-Visible Spectrophotometry in Chemistry Laboratory Instruction at Nebraska Wesleyan University		
	Northwest High School Omaha 68134	Roger Rea Science	5000	8554538 85
		Presidential Award for Excellence in Science and Mathematics Teaching		

NEVADA

	University of Nevada-Reno Reno 89557		10900	8350077 83
		Graduate Fellowship Support Grant		
	Valley H.S. Las Vegas 89103	Larry D. Wilson Mathematics	5000	N/A 83
		Presidential Award for Excellence in Science and Mathematics Teaching		
	Yerington Intermediate S Yerington 89447	Steven W. Pellegrini Science	5000	N/A 83
		Presidential Award for Excellence in Science and Mathematics Teaching		

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Bonanza H.S. Las Vegas 89102 Presidential Award for Excellence in Science and Mathematics Teaching	Virgil A. Sestini Science	5000	8470755 84
Robert McQueen H.S. Reno 89503 Presidential Award for Excellence in Science and Mathematics Teaching	Jennifer J. Salls Mathematics	5000	8470756 84
University of Nevada-Reno Reno 89557 Graduate Fellowship Support Grant		13000	8450101 84
Bonanza H.S. Las Vegas 89102 Presidential Award for Excellence in Science and Mathematics Teaching	Timothy R. Stahmer Mathematics	5000	8554541 85
Reno High School Reno 89509 Presidential Award for Excellence in Science and Mathematics Teaching	Judith T. Counter Science	5000	8554540 85
Univ of Nevada Las Vegas Las Vegas 89154 Applied Optics Laboratory	Stanley D. Cloud Physics	25438	8551195 85

NEW HAMPSHIRE

Kearsarge Regional H.S. New London 03257 Presidential Award for Excellence in Science and Mathematics Teaching	Herwood W. Curtiss Mathematics	5000	N/A 83
Oyster River H.S. Dover 03820 Presidential Award for Excellence in Science and Mathematics Teaching	Eleanor T. Milliken Science	5000	N/A 83
Antioch-New Eng Grad Sch Keene 03431 Nuclear Energy - An Honors Program for Rural New England High School Science Teachers	Mitchell Thomashow Environmental Studies	67857	8470223 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Dartmouth College Hanover 03755 Acquisition of Expertise in the Revision of Written Texts (Information Science)	Carole R. Beal Psychology	19319	8413621 84
Merrimack H.S. Merrimack 03054 Presidential Award for Excellence in Science and Mathematics Teaching	Rodney F. Mansfield Science	5000	8470757 84
St Paul's School Concord 03301 Presidential Award for Excellence in Science and Mathematics Teaching	Timothy Howell Mathematics	5000	8470758 84
Antioch-New Eng Grad Sch Mitchell Thomashow Keene 03431 Nuclear Energy - An Honors Program for Rural New England High School Science Teachers	Environmental Studies	75576	8470223 85
Dartmouth College Hanover 03755 Graduate Fellowship Support Grant		17100	8550716 85
Hillsboro-Deering H.S. Hillsboro 03244 Presidential Award for Excellence in Science and Mathematics Teaching	Charles A. Gaides Science	5000	8554542 85
Kimball Union Academy Meriden 03770 Presidential Award for Excellence in Science and Mathematics Teaching	John C. Howe Mathematics	5000	8554543 85
Univ N H Plymouth St Col Plymouth 03264 Mathematics Teacher Development in Central and Northern New Hampshire	Richard C. Evans Mathematics	189412	8470632 85
Univ of N H Durham Durham 03824 Honors Program and Regional Teacher Development in Mathematics and Science	Joan F. Mundy Mathematics	71049	8550191 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
NEW JERSEY			
Bernards High School Ironia 07841 Presidential Award for Excellence in Science and Mathematics Teaching	George R. Hague, Jr. Science	5000	N/A 83
Columbia H.S. Chatham 07928 Presidential Award for Excellence in Science and Mathematics Teaching	Mary D. Morrison Mathematics	5000	N/A 83
Princeton University Princeton 08544 Graduate Fellowship Support Grant		600000	8350098 83
Rutgers University New Brunswick 08903 Graduate Fellowship Support Grant		10900	8350106 83
Boonton H.S. Boonton 07005 Presidential Award for Excellence in Science and Mathematics Teaching	Dorothea Allen Science	5000	8470759 84
Educational Testing Serv Princeton 08540 Precollege Origins of Careers in Science and Engineering	Thomas L. Hilton Measurement Research	67980	8409199 84
Morris Knolls H.S. Denville 07834 Presidential Award for Excellence in Science and Mathematics Teaching	Jane B. Kennedy Mathematics	5000	8470760 84
Princeton University Princeton 08544 Graduate Fellowship Support Grant		520000	8450120 84
Rutgers University New Brunswick 08903 Individual Style in Early Language and Play	Lorraine McCune-Nicolich Education	49992	8319753 84
Stevens Inst of Tech. Hoboken 07030 Honors Workshop in Modern Biology for Pre-College Teachers	I. Richard Lapidus Physics & Engineering Phy	111593	8470132 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Council For Adv Sci Writ Absecon 00000 New Horizons-in-Science Briefings for Education of Journalists	William J. Cromie	26214	8470551 85
Educational Testing Serv Princeton 08540 A Comprehensive Data Base for Science Indicators--A Feasibility Study	Thomas L. Hilton Measurement Research and	170000	8511180 85
Educational Testing Serv Princeton 08540 Characteristics of Effective Computer Inservice Education	Brian M. Stecher Field Services	62075	8550353 85
Georgian Court Col Lakewood 08701 Physics of the Environment	Mary N. Farley Physics & Education	27695	8470388 85
Inst For Advanced Study Princeton 08540 Failures and Cures in Precollege Mathematics Education	Hassler Whitney School of Mathematics	46145	8470414 85
Millburn High School Millburn 07041 Presidential Award for Excellence in Science and Mathematics Teaching	Fred Blumenfeld Science	5000	8554555 85
Princeton University Princeton 08544 Graduate Fellowship Support Grant		1217960	8550769 85
Princeton University Princeton 08544 Partners in Education	Henry N. Drewry Teacher Primary Program	135476	8470634 85
Ramapo College of N J Mahwah 07430 NMR Instrumentation to Improve the Laboratory Curriculum	Grace B. Borowitz Chemistry	18790	8551251 85
Rutgers University New Brunswick 08903 Graduate Fellowship Support Grant		34200	8550776 85
Trenton State College Trenton 08625 Model Undergraduate RF/Microwave Design Laboratory	Allen Katz Electronics Engineering	44332	8552071 85

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STATE	INSTITUTION	CITY, ZIP	AWARD TITLE	PROJECT DIRECTOR	DEPARTMENT	AWARD AMOUNT	GRANT NUMBER	FISCAL YEAR
	Upper Montclair State Col	Montclair	Undergraduate Biochemistry Laboratory Instrumentation	Pamela J. Delaney	Chemistry	42611	8551719	85
	W Wilson Natl Fellow Fdn	Princeton	National Science Leadership Program	Carolyn Q. Wilson		490265	8470610	85
	Waldwick High School	Waldwick	Presidential Award for Excellence in Science and Mathematics Teaching	Daniel Flegler	Mathematics	5000	8554545	85

NEW MEXICO

	Portales H.S.	Portales	Presidential Award for Excellence in Science and Mathematics Teaching	Jimmie F. Lees	Mathematics	5000	N/A	83
	Santa Fe H.S.	Santa Fe	Presidential Award for Excellence in Science and Mathematics Teaching	Helen M. Foster	Science	5000	N/A	83
	University of New Mexico	Albuquerque	Graduate Fellowship Support Grant			10900	8350078	83
	New Mexico St University	Las Cruces	Graduate Fellowship Support Grant			13000	8450102	84
	New Mexico St University	Las Cruces	Science Education Workshop for Elementary Teachers	Antonio Mendez	Curriculum & Instruction	36695	8470221	84
	Roswell H.S.	Roswell	Presidential Award for Excellence in Science and Mathematics Teaching	David D. Archer	Mathematics	5000	8470762	84
	St Michael's H.S.	Santa Fe	Presidential Award for Excellence in Science and Mathematics Teaching	Joseph M. Walsh	Science	5000	8470761	84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
University of New Mexico Albuquerque 87131 Graduate Fellowship Support Grant		39000	8450103 84
University of New Mexico Richard J. Griego Albuquerque 87131 School Mathematics Materials Development Project	Electrical & Computer Eng	151806	8470100 84
Los Alamos High School Los Alamos 87544 Presidential Award for Excellence in Science and Mathematics Teaching	Wilbur Bergquist Science	5000	8554546 85
Los Alamos High School Los Alamos 87544 Presidential Award for Excellence in Science and Mathematics Teaching	Marian Finch Mathematics	5000	8554547 85
New Mexico St University Las Cruces 88003 Graduate Fellowship Support Grant		17100	8550752 85
University of New Mexico Albuquerque 87131 Graduate Fellowship Support Grant		68400	8550753 85
University of New Mexico Paul W. Tweeten Albuquerque 87131 Computers in the Science Classroom	Curriculum & Instruction	158092	8550233 85
NEW YORK			
Babylon Jr-Sr H.S. Roslyn Heights 11577 Presidential Award for Excellence in Science and Mathematics Teaching	Alfred Kalfus Mathematics	5000	N/A 83
Brooklyn College New York 11210 Graduate Fellowship Support Grant		10900	8264133 83
CUNY Grad Sch & Univ Ctr New York 10036 Graduate Fellowship Support Grant		57200	8350023 83

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Clarkson University Potsdam 13676 Graduate Fellowship Support Grant		10900	8350026 83
Columbia University New York 10027 Graduate Fellowship Support Grant		141700	8350030 83
Cooper Union New York 10003 Graduate Fellowship Support Grant		10900	8350032 83
Cornell University Ithaca 14853 Graduate Fellowship Support Grant		784800	8350033 83
Marlboro Central H.S. Hudson 12520 Presidential Award for Excellence in Science and Mathematics Teaching	Annette M. Saturnelli Science	5000	N/A 83
New School For Social Res New York 10003 Graduate Fellowship Support Grant		10900	8350080 83
New York University New York 10003 Graduate Fellowship Support Grant		65400	8350081 83
Rockefeller Univ New York 10021 Graduate Fellowship Support Grant		21800	8350105 83
SUNY at Albany Albany 12222 Graduate Fellowship Support Grant		9080	8350116 83
SUNY at Stony Brook Stony Brook 11794 Graduate Fellowship Support Grant		32700	8350119 83
Syracuse University Syracuse 13210 Graduate Fellowship Support Grant		9760	8350120 83

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Teachers College New York 10027 Graduate Fellowship Support Grant		10900	8350031 83
Univ of Rochester Rochester 14627 Graduate Fellowship Support Grant		54500	8350104 83
Yeshiva University New York 10033 Graduate Fellowship Support Grant		21800	8350145 83
Associated Univ Inc Upton 11973 Research Participation for Secondary School Science and Mathematics Teachers	Donald J. Metz Applied Science	258032	8470331 84
Bank Street Col of Ed New York 10025 Precollege Teacher Training Model in an Integrated Science- Microcomputing	Samuel Y. Gibbon Mathematics	931253	8319705 84
Bronx H.S. of Sci Fdn New York 10468 Presidential Award for Excellence in Science and Mathematics Teaching	Mark E. Saul Mathematics	5000	8470764 84
CUNY Central Sys Off New York 10010 Graduate Fellowship Support Grant		26000	8450053 84
CUNY-Col of Stat Is-St G Herman Erlichson New York 10301 High School Physics in the 1980's - the Computer Decade	Applied Sciences	123547	8470120 84
Canisius College Buffalo 14208 Biology Interaction Group/Partnership in Education	Edward C. Kisailus Biology	33995	8470328 84
Children's Tele Workshop New York 10023 3-2-1 Contact -- 100 Half-Hour Television Programs For Children About Science and Technology	Al Hyslop 3-2-1 Contact	3000000	8317404 84
Children's Tele Workshop New York 10023 3-2-1 Contact--A Children's Television Series About Science and Technology	Keith W. Mielke Research	200000	8024090 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
City College New York 10031 Model Program For a University-Schools Consortium to Produce Better Science Teachers	Linda Mantel Biology	504140	8470083 84
City College New York 10031 Physics Workshops for Elementary School Teachers	Harold L. Stolov Physics	130615	8470160 84
Clarkson University Potsdam 13676 Graduate Fellowship Support Grant		13000	8450054 84
Clarkson University Potsdam 13676 Honors Workshops For Precollege Teachers of Science and Mathematics	Randall Caton Physics	76840	8400281 84
College at Brockport Brockport 14420 Weather: Sensing, Analyzing, and Forecasting	Ira W. Geer Earth Sciences	47522	8319911 84
College at Brockport Brockport 14420 The Effects of Schools and Schooling on Mathematics and Science Achievement	Beth E. Vanfossen Sociology	132369	8310687 84
Columbia University New York 10027 Graduate Fellowship Support Grant		182000	8450058 84
Community Sch Dist 11 New York 41234 District Eleven Weather Study "Dews"	Vincent P. Young Funded Programs	82469	8313611 84
Cornell Univ - Endowed Ithaca 14853 The Acquisition and Representation of Word Meaning	Frank C. Keil Psychology	209878	8318076 84
Cornell University Ithaca 14853 Graduate Fellowship Support Grant		1144000	8450062 84
Cornell University Ithaca 14853 Evaluation Explanations in Light of Anomalous Information And Alternative Accounts	Barbara Koslowski Human Development	82269	8410600 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
East Islip H.S. Islip Terrace 11752 Presidential Award for Excellence in Science and Mathematics Teaching	Chirakkal V. Krishnan Science	5000	8470763 84
Hofstra Univ Hempstead 11550 Honors Workshop for Key Teachers and School Administrators - Grades K-6	Esther B. Sparberg Chemistry	77250	8319707 84
Long Island U-Brooklyn New York 11201 A Model for the In-Service Education of Exemplary Middle School Teachers of Science and Mathematics	Madeleine J. Long Education	294286	8316798 84
N Y Zoological Society New York 10001 WIZE Dissemination Project	Annette Berkovits Education	51336	8020410 84
New School For Social Res New York 10003 Graduate Fellowship Support Grant		13000	8450104 84
New York University New York 10003 Graduate Fellowship Support Grant		91000	8450105 84
New York University New York 10003 The Psychological Basis of Logical Reasoning	Martin D. Braine Psychology	113591	8409252 84
Rensselaer Polytech Inst Troy 12181 Graduate Fellowship Support Grant		554	8264060 84
Rensselaer Polytech Inst Troy 12181 Graduate Fellowship Support Grant		26000	8450122 84
Rockefeller Univ New York 10021 Graduate Fellowship Support Grant		56000	8450126 84
SUNY at Albany Albany 12222 Graduate Fellowship Support Grant		13300	8450132 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
SUNY at Buffalo Buffalo 14260 Graduate Fellowship Support Grant		10900	8450002 84
SUNY at Buffalo Buffalo 14260 Graduate Fellowship Support Grant		26000	8450133 84
SUNY at Stony Brook Stony Brook 11794 Graduate Fellowship Support Grant		26000	8450134 84
SUNY at Stony Brook Stony Brook 11794 Project For the Integration of Advanced Research and Teaching in Science and Mathematics	Max Dresden Physics	506860	8470163 84
Syracuse University Syracuse 13210 Frontiers in Science: Programs for Biology and Physical Science Teachers of Talented/Gifted Students	Science Teaching	567485	8470078 84
Univ of Rochester Rochester 14627 Graduate Fellowship Support Grant		78000	8450125 84
Univ of Rochester Rochester 14627 1984 Summer Honors Workshop for Science Teachers	Robert S. Knox Physics & Astronomy	88500	8470042 84
Yeshiva University New York 10033 Graduate Fellowship Support Grant		26000	8450153 84
Bank Street Col of Ed New York 10025 Inquire: Software Tools for Science Education	Jan Hawkins Cntr for Children & Tech	382790	8550339 85
Bank Street College of Ed New York 10025 Earth Lab: A Classroom Network for Young Scientists	Ed Denis Newman Cntr for Children & Tech	379997	8550449 85
Barnard College New York 10027 Environmental Science Laboratory Equipment	Richard F. Bopp Environmental Science	5650	8551580 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
CUNY Central Sys Off New York 10010 Graduate Fellowship Support Grant		1500	8550705 85
CUNY Lehman College Bronx 10468 Modernization of Undergraduate Physics Laboratories through Interfacing to Small Computers	Jack D. Ullman Physics & Astronomy	8446	8551917 85
Children's Tele Workshop New York 10023 A Children's Television Series About Mathematics	David Connell Children's Television Ser	2500000	8470622 85
City College New York 10031 Model Schools of the Future: Unlimited Access to Computers Leads to New Ways of Teaching and Learning Mathematics and Science	Bonnie Brownstein President	351904	8470224 85
City College New York 10031 Model Program for a University-School Consortium to Produce Better Science Teachers	Linda Mantel Biology	216872	8550579 85
Clarkson University Potsdam 13676 Graduate Fellowship Support Grant		17100	8550706 85
Colgate University Hamilton 13346 Chromatographic Instrumentation for Advanced Laboratory Program	John C. Cochran Chemistry	30695	8551931 85
Colgate University Hamilton 13346 Advanced Placement Workshop in Computer Science	Allen B. Tucker, Jr. Computer Science	51249	8550105 85
College at Brockport Brockport 14420 Everyday Weather: The Development of a New Teaching Method Based on the Use of Telecommunicated Current Weather Information	Ira W. Geer Earth Sciences	401114	8470344 85
College at Brockport Brockport 14420 Gamma-Ray Spectroscopy in the Undergraduate Laboratory	Richard V. Mancuso Physics	5680	8551935 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
College at Brockport Brockport 14420 Honors Workshop in LOGO Curriculum Development	Theron D. Rockhill Mathematics	59891	8470605 85
College at Brockport Brockport 14420 Weather: Sensing, Analyzing, and Forecasting	Robert S. Weinbeck Earth Sciences	54839	8550113 85
College at Cortland Cortland 13045 Energy Sources and Their Impact on the Environment	Ram P. Chaturvedi Physics	46425	8470577 85
College at Oswego Oswego 13126 Increasing the Effectiveness of Biology and Chemistry Instruction Through Research Applications	J. Nathan Swift Secondary Education	360280	8470215 85
College at Oswego Oswego 13126 Winter Ecology Curriculum Development: A Neglected Aspect of Precollege Environmental Science Education	Peter G. Weber Biology	111330	8470180 85
Columbia University New York 10027 Graduate Fellowship Support Grant		256500	8550711 85
Columbia University New York 10027 Second Phase, International Science Study	Willard J. Jacobson Mathematics	358857	8470382 85
Cornell University Ithaca 14853 Graduate Fellowship Support Grant		1333800	8550714 85
Educ Broadcasting Corp New York 100010000 BRAIN II: A Television Series	George Page Arts & Sci Programming	50000	8550540 85
Girls Clubs of America New York 10016 Operation S.M.A.R.T. (Science, Math and Relevant Technology) A National Program of Informal Education	Ellen W. Sullivan Program Services	50000	8550555 85
Huntington High School Huntington 11743 Presidential Award for Excellence in Science and Mathematics Teaching	Kenneth S. House Science	5000	8554548 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Ithaca College Ithaca 14850 Proton Transfer and Other Elementary Steps Associated With Addition and Elimination Reactions (Chemistry)	Heinz F. Koch Chemistry	51200	8316219 85
James Lipscomb Inc New York 10016 First Feelings: The Emotional Maze of Infancy	James Lipscomb President	36626	8550530 85
Long Island U-Brooklyn Brooklyn 11201 Instrumentation for A Molecular Biology Honors Program Principally Serving Undergraduate Minority Members and Women	Dennis Curley Biology	50000	8551705 85
Long Island U-Southampton Southampton 11968 Support Equipment for Aquaculture-Related Activities in a Marine Science Major	Larry B. Liddle Natural Science Division	5603	8551568 85
Long Island University Greenvale 11548 A Model for the In-Service Education of Exemplary Middle School Teachers of Science and Mathematics	Madeleine J. Long Education	87400	8316798 85
Manhattan College Bronx 10471 A Tilting Flume System for the Fluid Mechanics Laboratory	Siddhartha Bagchi Civil Engineering	21696	8552141 85
Manhattan College Bronx 10471 Advanced Separation Processes for Chemical Engineering Laboratories	C. Stewart Slater Chemical Engineering	43524	8551851 85
Manhattan College Riverdale 10471 Laser Electro-Optics Design Laboratory	Robert Stirbl Electrical Engineering	21685	8551848 85
Manhattanville College Purchase 10577 Equipment to Support Laboratory Studies in Human and Experimental Psychology	Nicole Schupf Psychology	13007	8551435 85
N Y Inst of Technology Old Westbury 11568 A Proposal to Develop Discovery-Learning Materials in Mathematics	Ludwig Braun Academic Computing Lab	305132	8470340 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Nazareth Col of Rochester Rochester 14610 Fluorescence Microscopy and Photomicroscopy Equipment to Support Undergraduate Biology Instruction	Matthew J. Temple Biology	8853	8551166 85
New York University New York 10003 Graduate Fellowship Support Grant		116825	8550754 85
New York University New York 10003 The Changing Contours of the Teaching Profession: Selection, Retention and Attrition Among Math and Science Teachers	Barbara Heyns Sociology	194686	8512580 85
Ntl Actn Cncl Minor Eng New York 10001 An Information Program for Junior and Senior High School Teachers and Students to Improve Understanding and Awareness of Mathematics and Science Education	Ronne Denes Programs, Planning & Res	100000	8470458 85
Queens College Flushing 11367 Undergraduate Computer Graphics Laboratory	Henry Rusinek Computer Science	50000	8552221 85
Queens College Flushing 11367 Acquisition of a Digital Sonograph for an Undergraduate Speech Science Laboratory	Phillip Schneider Comm Arts and Sci	9155	8552066 85
Queens College Flushing 11367 Some Uses of Mathematics (SUM)	Susan Turkel Elem & Early Child Ed	141898	8550012 85
Rensselaer Polytech Inst Troy 12181 Graduate Fellowship Support Grant		38300	8550771 85
Rensselaer Polytech Inst Troy 12181 Simple and Proven Physics Demonstrations (Videotapes for High School Teachers)	Alfred Leitner Physics	82454	8470648 85
Rochester Inst of Tech Rochester 14623 1985-86 Mini-Course Program for Pre-College Science and Mathematics Teachers	Arthur Z. Kovacs Physics	84835	8550246 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Rochester Inst of Tech Rochester 14623 Gas Chromatography/Mass Spectrometry in Chemistry Laboratory Courses	John P. Neenan Chemistry	38215	8552110 85
Rochester Inst of Tech Rochester 14623 An Undergraduate Concentration in Networking and Distributed Systems	Margaret M. Reek Computer and Sciences	50000	8551490 85
Rockefeller Univ New York 10021 Graduate Fellowship Support Grant		135210	8550775 85
Roslyn High School Roslyn Heights 11577 Presidential Award for Excellence in Science and Mathematics Teaching	Steven R. Conrad Mathematics	5000	8554549 85
SUNY at Buffalo Buffalo 14260 Graduate Fellowship Support Grant		17100	8550782 85
SUNY at Buffalo Buffalo 14260 The Integrated Use of a Microcomputer System in a Biochemistry Teaching Laboratory	Daniel J. Kosman Biochemistry	1197	8263302 85
SUNY at Stony Brook Stony Brook 11794 Algorithm Discovery	Peter B. Henderson Computer Sciences	138135	8470250 85
Sci Inst For Public Info New York 10001 Science Seminars for Media Gatekeepers	Fred Jerome Media Resource Service	43264	8550149 85
Siena College Loudonville 12211 Introduction of Modern Techniques of Cellular/Molecular Biology into the Curriculum	John H. Hayden Biology	44500	8551179 85
Skidmore College Saratoga Spring 12866 Enhancement of Undergraduate Cell-Related Laboratories Through Acquisition of an Advanced Light Microscope	David S. Domozych Biology	9000	8551075 85

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STATE	INSTITUTION CITY, ZIP	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
	Teachers College New York 10027	Herbert P. Ginsburg Human Devel, Cognition	334758	8550880 85
	Children's Mathematical Thinking: Video Workshops for Educators			
	U of Rochester-Sch Med Rochester 14627	Ronald E. Yasbin Microbiology/Biotechnolog	101531	8470626 85
	Biotechnology in Secondary Education			
	Union College Schenectady 12308	Joan M. Krejci Biology	68237	8550041 85
	A College-School-Industry Model of Honors Workshops for Science Teachers			
	Univ of Rochester Rochester 14627		13000	8450125 85
	Graduate Fellowship Support Grant			
	Univ of Rochester Rochester 14627		64950	8550774 85
	Graduate Fellowship Support Grant			
	Univ of Rochester Rochester 14627	Stewart L. Sharpless Physics & Astronomy	100250	8550100 85
	1985 Summer Honors Workshop for Science Teachers			
	Vassar College Poughkeepsie 12601	David Cox Biology	49280	8551710 85
	Purchase of Ultracentrifuge, Liquid Scintillation Counter, Gel Electrophoresis Equipment and Related Apparatus for Teaching Molecular Biology to Undergraduates			
	Yeshiva University New York 10033		17100	8550801 85
	Graduate Fellowship Support Grant			

NORTH CAROLINA

Chapel Hill Senior H.S.	Burton W. Stuart, Jr.	5000	N/A
Chapel Hill 27514			83
Presidential Award for Excellence in Science and Mathematics Teaching			
Duke University Durham 27706		196200	8350035 83
Graduate Fellowship Support Grant			

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
N C St Univ at Raleigh Raleigh 27695 Graduate Fellowship Support Grant		8500	8264076 83
N C St Univ at Raleigh Raleigh 27695 Graduate Fellowship Support Grant		54500	8350082 83
U of N C at Chapel Hill Chapel Hill 27514 Graduate Fellowship Support Grant		50350	8350083 83
U of N C at Chapel Hill Chapel Hill 27514 The Relation of Precollege Enrollment in Mathematics and Science to Achievement, College Major and Attendance	Lyle V. Jones Psychometric Lab	80239	8306958 83
Whiteville H.S. Hallsboro 28442 Presidential Award for Excellence in Science and Mathematics Teaching	Ann F. Barefoot Science	5000	N/A 83
Charles Edward Jordan HS Durham 27707 Presidential Award for Excellence in Science and Mathematics Teaching	David L. Green Mathematics	5000	8470766 84
Duke Univ Durham 27706 Graduate Fellowship Support Grant		260000	8450064 84
N C Central University Durham 27707 Regional Workshop in Energy Education for Teachers of Grades 5-7	Jasper L. Harris Geography	38484	8470352 84
N C St Univ at Raleigh Raleigh 27695 Graduate Fellowship Support Grant		104000	8450106 84
N C St Univ at Raleigh Raleigh 27695 Recognition and Research Training for Teachers with Award Winning Students	Lundie Spence UNC Sea Grant College Pro	36506	8470194 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Research Triangle Inst Research Triang27709 National Survey of Science and Mathematics Education	Iris R. Weiss Ctr for Educ Studies	374057	8317070 84
Rutherfordton-Spindal HS Rutherfordton 28139 Presidential Award for Excellence in Science and Mathematics Teaching	Lucille H. Daniel Science	5000	8470765 84
U of N C at Chapel Hill Chapel Hill 27514 Graduate Fellowship Support Grant		208000	8450107 84
U of N C at Charlotte Charlotte 28223 Development of Motivation Materials For Junior High School Physical Science	Dorlan Mork Coll of Human Development	54061	8319153 84
Univ of NC at Wilmington Wilmington 28401 Graduate Fellowship Support Grant		13000	8450108 84
Western Carolina Col Cullowhee 28723 Development of a Regional Information Exchange System	Roger H. Lumb Biology	171422	8319910 84
Appalachian State Univ Boone 28608 Modern Laboratory Exercises in Astronomy	Daniel B. Caton Physics & Astronomy	24910	8551003 85
Cary Senior High School Cary 27511 Presidential Award for Excellence in Science and Mathematics Teaching	Julie F. Schilawski Mathematics	5000	8554551 85
Catawba Col Salisbury 28144 Leadership Development Project in Elementary and Middle School Computer Education	William F. Palmer Ctr for Math & Science	91874	8470599 85
Davidson College Davidson 28036 Quantitative Multivariate Field Monitoring of Aquatic Habitats and Computer Assisted Data Analysis in Ecology	David C. Grant Biology	7424	8551539 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Davidson College Davidson 28036 Applications of Modern Electrochemical Concepts in the Undergraduate Chemistry Curriculum	Ruth A. Freitag Chemistry	10131	8551162 85
Duke Univ Durham 27706 Graduate Fellowship Support Grant		171000	8550717 85
Elon College Elon College 27244 Computing Equipment for Improving Undergraduate Instruction in Social Science Methodology	George A. Taylor Social Science	8188	8551728 85
N C St Univ at Raleigh Raleigh 27695 Graduate Fellowship Support Grant		119700	8550755 85
N C St Univ at Raleigh Raleigh 27695 Comprehensive Evaluation and Review of Precollege Physics Educational Courseware	John S. Risley Physics	194802	8470450 85
Pembroke State Univ Pembroke 28372 A Chemical Instrumentation Program Based on Biomedical Relevance	Harold J. Teague Physical Science	10467	8551725 85
Research Triangle Inst Research Triang 27709 Development of Options for Managing NSF/SEE Middle School Science Programs	Iris R. Weiss Ctr for Ed Studies	232431	8554471 85
Robeson Cty. Brd. Educ Lumberton 28359 Teacher Recertification-Industrial Automation and Computer Systems (TRIACS)	V. R. Thompson Central Office	69663	8550180 85
Surry Central H.S. Dobson 27017 Presidential Award for Excellence in Science and Mathematics Teaching	Marv V. McCrary Science	5000	8554550 85
U of N C at Chapel Hill Chapel Hill 27514 Graduate Fellowship Support Grant		256600	8550756 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
U of N C at Charlotte Charlotte 28223 The Modernization and Improvement of Advanced Physics Laboratories	Terrill W. Mayes Physics	29197	8551515 85
U of N C at Charlotte Charlotte 28223 Solid State and Semiconductor Device Physics Undergraduate Laboratory	Edward H. Nicollian Electrical Engineering	29840	8552216 85
U of N C at Charlotte Charlotte 28223 Using Minitab to Teach Elementary Statistics	David Nixon Mathematics	50000	8551529 85
U of N C at Greensboro Greensboro 27412 Graduate Fellowship Support Grant		17100	8550757 85
U of N C at Greensboro Greensboro 27412 Project ARCHIMEDES: Applications, Reasoning, and Concepts for High School Instructors: Making Educational Discoveries and Expanding Skills	Suzanne M. Lea Physics	269548	8470438 85
U of N C at Greensboro Greensboro 27412 Honors Workshop for Middle School Science Teachers - A Cooperative Venture	Gerald W. Meisner Physics	67658	8470669 85
Univ of NC at Wilmington Wilmington 28401 Graduate Fellowship Support Grant		17100	8550758 85

NORTH DAKOTA

Bismarck H.S. Bismarck 58501 Presidential Award for Excellence in Science and Mathematics Teaching	Gary W. Froelich Mathematics	5000	N/A 83
Robinson Public School Robinson 58478 Presidential Award for Excellence in Science and Mathematics Teaching	Marcia Steinwand Science	5000	N/A 83

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STATE	INSTITUTION CITY, ZIP	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
	Fordville Public School Fordville 58231	John T. Hobbs Science	5000	8470767 84
	Presidential Award for Excellence in Science and Mathematics Teaching			
	Valley City H.S. Valley City 58072	Leland Sabby Mathematics	5000	8470768 84
	Presidential Award for Excellence in Science and Mathematics Teaching			
	Carrington High School Carrington 58421	Neil Pederson Mathematics	5000	8554553 85
	Presidential Award for Excellence in Science and Mathematics Teaching			
	Univ of North Dakota Grand Forks 58201	William A. Dando Geography	202579	8470308 85
	Pre-College Earth Science Meteorology and Climatology Materials			
	Velva Public School Velva 58790	Donald L. Hoff Science	5000	8554552 85
	Presidential Award for Excellence in Science and Mathematics Teaching			
OHIO				
	Case Western Res Univ Cleveland 44106		43600	8350020 83
	Graduate Fellowship Support Grant			
	Jones Middle School Columbus 43221	Carolyn H. Farnsworth Science	5000	N/A 83
	Presidential Award for Excellence in Science and Mathematics Teaching			
	Kent St Univ Kent 44242		10900	8350059 83
	Graduate Fellowship Support Grant			
	Mayfield H.S. Bedford Hghts 44146	William J. Hunt Mathematics	5000	N/A 83
	Presidential Award for Excellence in Science and Mathematics Teaching			

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Ohio St Univ Columbus 43212 Graduate Fellowship Support Grant		84320	8350088 83
Univ of Cincinnati Cincinnati 45221 Graduate Fellowship Support Grant		43600	8350022 83
Wright State Univ Dayton 45435 Graduate Fellowship Support Grant		10900	8350142 83
Bowling Green State Univ Joseph Frizado Bowling Green 43403 Geology Hydrogeology Simulations in Secondary School Earth Science Curricula		49492	8470035 84
Case Western Res Univ Cleveland 44106 Graduate Fellowship Support Grant		52000	8450050 84
Denison Univ Granville 43023 Local and Regional Teacher Development Project in Astronomy for Elementary and Middle School Teachers	Sandra B. Yorka Physics and Astronomy	34837	8316801 84
Dover H.S. Dover 44622 Presidential Award for Excellence in Science and Mathematics Teaching	Clifford L. Schrader Science	5000	8470769 84
Kent St Univ Kent 44242 Graduate Fellowship Support Grant		26000	8450085 84
Kent St Univ Kent 44242 Implementation of Ohio's Energy Education Program -- an Honors Workshop For Junior and Senior High School Mathematics and Science Teachers	David L. Uhrich Physics	42939	8470105 84
Miami Univ Oxford Campus Paul M. Daniel Oxford 45056 Zoology Honors Workshop: The Current Implications of Science For Secondary Science Teachers		82926	8320519 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Notre Dame Col Cleveland 44121 Honors Program For Precollege Science Teachers	Jeanmarie DeChant Chemistry	79875	8470141 84
Oberlin H.S. Oberlin 44074 Presidential Award for Excellence in Science and Mathematics Teaching	Rudd A. Crawford, Jr. Mathematics	5000	8470770 84
Ohio St Univ Columbus 43212 Graduate Fellowship Support Grant		84500	8450112 84
Ohio St Univ Columbus 43212 Development and Dissemination of an Integrated Multi-Purpose Software Package	Suzanne Damarin Ed Theory and Practice	195130	8318542 84
Ohio St Univ Columbus 43212 A Numerical Problem Solving Approach to Variables and Functions in Pre-Algebra For Grades 7 and 8	Joan R. Leitzel Mathematics	370975	8470195 84
U of Dayton Dayton 45409 Honors Workshop in Bio-Mathematics for Secondary School Science Teachers	Charles J. Chantell Biology	30337	8320349 84
U of Dayton Dayton 45409 Honors Workshop in Field Biology and Geology for Junior and Senior High School Teachers	Patrick K. Williams Biology	147922	8400359 84
Univ of Cincinnati Cincinnati 45221 Graduate Fellowship Support Grant		39000	8450052 84
Univ of Toledo Toledo 43606 Research Participation For Honors Teachers	Jerome E. DeBruin College of Education	73347	8470057 84
Univ of Toledo Toledo 43606 Honors Workshops in Space Science For Pre-College Teachers Of Science and Mathematics	John F. Schaff Curriculum & Ed Tech	315963	8470084 84

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Wright State Univ Dayton 45435 Graduate Fellowship Support Grant		13000	8450151 84
Xavier University Cincinnati 45207 Projects in Physics	Stephen C. Yerian Physics	32600	8470060 84
Youngstown St Univ Youngstown 44555 Honors Workshop in Earth Science	Ikram U. Khawaja Geology	45141	8470121 84
Bowling Green State Univ Bowling Green 43403 Science Enrichment for Northwest Ohio Schools	Evan McFee Educational Curriculum &	53090	8550062 85
Case W ResUniv-Case Inst Cleveland 44106 Honors Workshop for Precollege Teachers	John D. McGervey Physics	20261	8550014 85
Case Western Res Univ Cleveland 44106 Graduate Fellowship Support Grant		85500	8550701 85
Col of Wooster Wooster 44691 Equipment to Increase Undergraduate Research Participation in Psychology	William B. Scott Psychology	29027	8551445 85
Denison University Granville 43023 Computer-Controlled Instrumentation for an Experimental Physics Laboratory	Lee E. Larson Physics	39609	8552289 85
John Carroll Univ Cleveland 44118 Equipment to Upgrade Undergraduate Laboratories for Molecular Genetics and Microbiology	Valerie R. Flechtner Biology	30493	8552107 85
Kent St Univ Kent 44242 Graduate Fellowship Support Grant		17100	8550738 85
Kenyon College Gambier 43022 Computer Equipment for Data Acquisition and Analysis in an Advanced Physics Laboratory	John D. Idoine Physics	17780	8551244 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Kenyon College Gambier 43022 Ultraviolet/Visible Spectrophotometer - A Modernization Project	Gordon L. Johnson Chemistry	10643	8551597 85
Kenyon College Gambier 43022 Equipment to Teach Techniques for the Bioelectric Recording of Nervous System Function	Kenneth R. King Psychology	10000	8551443 85
Kenyon College Gambier 43022 Equipment for Undergraduate Instruction in the Techniques of Subcellular Analysis by Ultracentrifugation	Joan L. Slonczewski Biology	23000	8551645 85
Oberlin College Oberlin 44074 Purchase of a Gas Chromatograph/Mass Spectrometer System	Albert R. Matlin Chemistry	27055	8551703 85
Ohio St Univ Columbus 43212 Graduate Fellowship Support Grant		118650	8550760 85
Ohio Wesleyan Univ Delaware 43015 Purchase of A General Purpose Polygraph with Biofeedback Capability for An Undergraduate Psychophysiology Laboratory	Alexander Heingartner Psychology	5799	8552196 85
Ohio Wesleyan Univ Delaware 43015 A Fourier Transform Infrared Spectrometer for Curricular Improvement in Chemistry	Robert D. McQuigg Chemistry	20175	8552000 85
Rocky River High School Rocky River 44116 Presidential Award for Excellence in Science and Mathematics Teaching	Lawrence J. Badar Science	5000	8554554 85
Univ of Cincinnati Cincinnati 45221 Graduate Fellowship Support Grant		52575	8550704 85
Univ of Cincinnati Cincinnati 45221 Discrete Mathematics, Probability, and Mathematical Modeling	Raymond H. Rolwing Mathematics	86335	8550009 85

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STATE	INSTITUTION CITY, ZIP	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
	Univ of Dayton Dayton 45409	Patrick K. Williams Biology	99448	8550020 85
	Honors Workshop in Field Biology and Geology for Teachers			
	Univ of Toledo Toledo 43606	Jerome E. DeBruin College of Education	96986	8470671 85
	Research Participation for Honors Teachers			
	Univ of Toledo Toledo 43606	John F. Schaff Curriculum & Ed Tech	163091	8544694 85
	Honors Workshops in Space Science For Pre-College Teachers Of Science and Mathematics			
	Univ of Toledo Toledo 43606	John F. Schaff Curriculum & Ed Tech	56049	8470084 85
	Honors Workshops in Space Science For Pre-College Teachers Of Science and Mathematics			
	Walnut Hills High School Cincinnati 45207	Ruth E. Hubbard Mathematics	5000	8554555 85
	Presidential Award for Excellence in Science and Mathematics Teaching			
	Wittenberg Univ Springfield 45501	William E. Dollhopf Physics	243821	8470501 85
	Teaching Science: Training Elementary and Middle School Teaching Hands On			
	Xavier University Cincinnati 45207	Terrence P. Toepker Physics	8422	8551429 85
	Lasers for a Holography and Physical Optics Laboratory			

OKLAHOMA

	Byng Public Sch. System Ada 74820	Charles E Hobbs Mathematics	5000	N/A 83
	Presidential Award for Excellence in Science and Mathematics Teaching			
	Moore H.S. Moore 73160	Jimmie Pigg Science	5000	N/A 83
	Presidential Award for Excellence in Science and Mathematics Teaching			

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Oklahoma State Univ Stillwater 74078 Graduate Fellowship Support Grant		12000	8350089 83
Univ Okla Hlth Scis Ctr Oklahoma City 73190 Graduate Fellowship Support Grant		10900	8350090 83
Univ of Oklahoma Norman 73019 Graduate Fellowship Support Grant		24500	8350091 83
Booker T Washington H.S. Otis Autry Tulsa 74106 Presidential Award for Excellence in Science and Mathematics Teaching	Science	5000	8470771 84
East Central Okla St U Ada 74820 Local and Regional Teacher Development For Oklahoma Chemistry Teachers	Don Kellogg Education	70194	8470112 84
Norman H.S. Norman 73069 Presidential Award for Excellence in Science and Mathematics Teaching	David L. Brennan Mathematics	5000	8470772 84
Oklahoma State Univ Stillwater 74078 Graduate Fellowship Support Grant		37900	8450113 84
Oklahoma State Univ Stillwater 74078 Honors Workshop For Earth Science Teachers in the Analog And Digital Analysis of Remotely-Sensed Data	Stephen J. Walsh Geography	51063	8470021 84
Oklahoma State Univ Stillwater 74078 Honors Workshop on Remote Sensing for Middle School Teachers of Earth Science	Stephen J. Walsh Geography	40527	8470067 84
Southwestern Okla St U Weatherford 73096 Workshops in Physical Science and Technology for Secondary Science Teachers	Benny J. Hill Physics	26539	8470315 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Oklahoma Norman 73019 Graduate Fellowship Support Grant		65000	8450114 84
Univ of Oklahoma Norman 73019 Learning Cycles for High School Biology, Chemistry and Physics	John W. Renner Science Education	36589	8320683 84
Univ of Oklahoma Norman 73019 A Teachers' Workshop in Utilizing the Learning Cycle in Elementary School Science	John W. Renner Science Education	43519	8320690 84
Duncan High School Duncan 73533 Presidential Award for Excellence in Science and Mathematics Teaching	Margaret K. Watson Mathematics	5000	8554557 85
East Central Okla St U Ada 74820 Content and Methodology Improvement of Chemistry, Physics, Mathematics and Computer Science Teachers	Don Kellogg Education	152372	8550082 85
MacArthur High School Lawton 73501 Presidential Award for Excellence in Science and Mathematics Teaching	Robert Wright Science	5000	8554556 85
Oklahoma State Univ Stillwater 74078 Graduate Fellowship Support Grant		24400	8550761 85
Oklahoma State Univ Stillwater 74078 Increasing the Participation of Native American Students in Higher Mathematics	Helen Cheek Curriculum & Instruction	127143	8470460 85
Univ of Oklahoma Norman 73019 Graduate Fellowship Support Grant		18480	8550762 85
Univ of Oklahoma Norman 73019 An Honors Workshop for Teachers of Secondary School Biology, Chemistry and Physics	John W. Renner Science Education	61940	8550013 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Oklahoma Norman 73019 An Honors Workshop for Teachers in Utilizing the Learning Cycle in Elementary School Science	John W. Renner Science Education	55009	8550107 85
Univ of Tulsa Tulsa 74104 Introducing Biotechnology to Pre-College Students	Steffen H. Rogers Biology	89599	8550196 85
OREGON			
Lake Oswego Senior H.S. Portland 97219 Presidential Award for Excellence in Science and Mathematics Teaching	Sue A. McGraw Mathematics	5000	N/A 83
Marshfield H.S. Coos Bay 97420 Presidential Award for Excellence in Science and Mathematics Teaching	George A. Tinker Science	5000	N/A 83
Oreg Hlth Scis Univ Portland 97201 Graduate Fellowship Support Grant		10900	8350156 83
Oregon State Univ Corvallis 97331 Graduate Fellowship Support Grant		3600	8350092 83
Univ of Oregon - Eugene Eugene 97403 Graduate Fellowship Support Grant		10900	8350093 83
Univ of Oregon - Eugene Eugene 97403 Graduate Fellowship Support Grant		21800	8350146 83
Oreg Hlth Scis Univ Portland 97201 Graduate Fellowship Support Grant		26000	8450116 84
Oregon State Univ Corvallis 97331 Graduate Fellowship Support Grant		7300	8350092 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Sheldon H.S. Eugene 97401 Presidential Award for Excellence in Science and Mathematics Teaching	Scott D. McFadden Mathematics	5000	8470774 84
Univ of Oregon - Eugene Eugene 97403 Graduate Fellowship Support Grant		52000	8450115 84
Univ of Oregon - Eugene Eugene 97403 Oregon Science and Mathematics Institute for Teaching Excellence (Smite)	David R. Sokoloff Physics	142638	8470092 84
Whitford Jr H.S. Beaverton 97075 Presidential Award for Excellence in Science and Mathematics Teaching	Richard F. Duncan, Jr. Science	5000	8470773 84
Cleveland High School Portland 97202 Presidential Award for Excellence in Science and Mathematics Teaching	Richard M. Myers Science	5000	8554558 85
Eastern Oregon St Coll La Grande 97850 Addition of NMR Spectroscopy to the Chemistry Program	Richard A. Hermens Chemistry	21653	8551790 85
Lewis and Clark College Portland 97219 Fourier Transform Spectroscopy and Laboratory Computer Data Analysis	Curtis R. Keedy Chemistry	20208	8551986 85
Linfield College Mcminnville 97128 Instrumentation for Teaching Quantitative Techniques in Undergraduate Biology Laboratories	John A. Hare Biology	30000	8552231 85
Oreg Hlth Scis Univ Portland 97201 Graduate Fellowship Support Grant		34200	8550765 85
Oregon Inst of Tech Klamath Falls 97601 Field to Finish - Surveying Instrumentation	Earl F. Burkholder Civil Engineering Tech	26351	8551613 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Oregon State Univ Corvallis 97331 Graduate Fellowship Support Grant		17100	8550763 85
Oregon State Univ Corvallis 97331 Alternative Approaches to the Teaching of Secondary Mathematics	J. Michael Shaughnessy Mathematics	232651	8470656 85
Portland State Univ Portland 97207 Math and the Mind's Eye	Eugene A. Maier Mathematics	668301	8470371 85
Reed College Portland 97202 Acquisition of a GC/MS Instrument for the Chemistry Department	J. E. Hancock Chemistry	43408	8552004 85
Reed College Portland 97202 Core Laboratory for Reed College Psychology Department	Allen Neuringer Psychology	36455	8551632 85
Rex Putnam High School Milwaukie 97222 Presidential Award for Excellence in Science and Mathematics Teaching	Wallace D. Rogelstad Mathematics	5000	8554559 85
Univ of Oregon - Eugene Eugene 97403 Graduate Fellowship Support Grant		74600	8550764 85
Univ of Oregon - Eugene Eugene 97403 Leadership Development for Computer-Integrated Instruction in Pre-College Education	David G. Moursund College of Education	101081	8550588 85
Univ of Portland Portland 97203 Equipment to Implement A Cooperative Biology-Chemistry Project for Improving Undergraduate Laboratory Instruction	Lillian Job Physical & Life Sciences	22000	8551867 85

PENNSYLVANIA

Carnegie Mellon Univ Pittsburgh 15213 Graduate Fellowship Support Grant		75830	8350019 83
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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Cheltenham High School Chalefont 18914 Presidential Award for Excellence in Science and Mathematics Teaching	Louis F. Devicaris Science	5000	N/A 83
Hahnemann Med Col & Hosp Philadelphia 19102 Graduate Fellowship Support Grant		10900	8350044 83
Pennsylvania State Univ University Park 16802 Graduate Fellowship Support Grant		10900	8350095 83
State College Area H.S. State College 16801 Presidential Award for Excellence in Science and Mathematics Teaching	Annalee Henderson Mathematics	5000	N/A 83
Temple University Philadelphia 19122 Graduate Fellowship Support Grant		10900	8350121 83
Univ of Pennsylvania Philadelphia 19104 Graduate Fellowship Support Grant		250700	8350096 83
Univ of Pittsburgh Pittsburgh 15260 Graduate Fellowship Support Grant		24040	8350097 83
Carnegie Mellon Univ Pittsburgh 15213 Graduate Fellowship Support Grant		182000	8450049 84
Carnegie Mellon Univ Pittsburgh 15213 Structures For Plan-based Tutoring: Applications to Geometry (Information Science)	John R. Anderson Psychology	328205	8318629 84
Chestnut Hill College Philadelphia 19118 The Earth and Computer Science Honors Workshop	Helen M. Burke Science, Computers & Ed	91448	8320688 84
Edinboro Univ of Penn Edinboro 16444 Local and Regional Field Study for Middle and Junior High School Earth Science	Michael C. Schneider Geosciences	187572	8316280 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Hahnemann Med Col & Hosp Philadelphia 19102 Graduate Fellowship Support Grant		13000	8450072 84
Lehigh University Bethlehem 18015 Graduate Fellowship Support Grant		26000	8450087 84
Mansfield University Mansfield 16933 A Workshop For Elementary School Teachers in Pre-College Chemistry	Arnold George Chemistry	49656	8400355 84
Moravian Academy Bethlehem 18017 Presidential Award for Excellence in Science and Mathematics Teaching	Thomas R. Bross Science	5000	8470775 84
Penn Manor School Dist Millersville 17551 Presidential Award for Excellence in Science and Mathematics Teaching	Barry L. Kauffman Mathematics	5000	8470776 84
Pennsylvania State Univ University Park 16802 Graduate Fellowship Support Grant		65000	8450117 84
Pennsylvania State Univ University Park 16802 Precollege Materials Development Involving Science Through Science, Technology and Society (STS) Strategy	Rustum Roy Materials Research Lab.	850000	8317984 84
Phila Col of Text & Sci Philadelphia 19144 A Cooperative Approach to Microcomputer Interfacing for the Precollege Science Laboratory	Edward E. Dowden Chemistry & Physical Sci	14742	8470377 84
Temple University Philadelphia 19122 Graduate Fellowship Support Grant		39000	8450135 84
Temple University Philadelphia 19122 Teaching Physical Science Principles Through Film	Leroy W. Dubeck Physics	34400	8320038 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Pennsylvania Philadelphia 19104 Graduate Fellowship Support Grant		429580	8450118 84
Univ of Pittsburgh Pittsburgh 15260 Graduate Fellowship Support Grant		13000	8450119 84
Univ of Pittsburgh Pittsburgh 15260 Collaborative Research: Understanding and Solving Word Arithmetic Problems	James G. Greeno Education	34230	8310708 84
Univ of Pittsburgh Pittsburgh 15260 Numerical Concepts in Infancy	Mark S. Strauss Psychology	235658	8318096 84
Univ of Pittsburgh Pittsburgh 15260 Naive Understanding, Learning and Reasoning	James Voss Learning R&D Center	119999	8409123 84
Bucknell University Lewisburg 17837 Modern Integrated Engineering Workstations for Undergraduate Electrical Engineering Laboratories	Maurice F. Aburdene Engineering	50000	8551136 85
Bucknell University Lewisburg 17837 Enhancement of the Polymer Science Laboratory	William J. Snyder Chemical Engineering	13517	8551557 85
Carnegie Mellon Univ Pittsburgh 15213 Graduate Fellowship Support Grant		393300	8550700 85
Carnegie Mellon Univ Pittsburgh 15213 The Development of Intelligent Computer-Based Tutors for High School Mathematics	John R. Anderson Psychology	342850	8470337 85
Carnegie Mellon Univ Pittsburgh 15213 Powerful Computing for Education in Mathematics and Science at the Basic Professional Level	Jill H. Larkin Psychology	492759	8470166 85
Clarion St College Clarion 16214 Introduction of the Gas Chromatograph-Mass Spectrometer in the Undergraduate Curriculum at Clarion University	William N. Brent Chemistry	39915	8551180 85

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David B Oliver H.S. Pittsburgh 15212 Presidential Award for Excellence in Science and Mathematics Teaching	John M. Carpenter Mathematics	5000	8554561 85
Dickinson College Carlisle 17013 Improved Nuclear Magnetic Resonance Instructional and Research Capabilities for Undergraduates	Gerald C. Roper Chemistry	50000	8551598 85
Edinboro Univ of Penn Edinboro 16444 Local and Regional Field Study for Middle and Junior High School Earth Science	Michael C. Schneider Geosciences	187959	8316280 85
Franklin & Marshall Col Lancaster 17604 An Integrated Program for Using High Performance Liquid Chromatography at Franklin & Marshall College	Phyllis A. Leber Chemistry	15745	8551135 85
Franklin & Marshall Col Lancaster 17604 Computer Interfacing of Advanced Laboratory Equipment	Philip H. Sutter Physics	23719	8551373 85
Harriton High School Rosemont 19010 Presidential Award for Excellence in Science and Mathematics Teaching	James H. Nelson Science	5000	8554560 85
Haverford College Haverford 19041 Equipment to Improve the Teaching of Protein Chemistry, Cellular Immunology and Gene Cloning to Upper Division Biology Students	Christopher G. Goff Biology	20780	8551693 85
Haverford College Haverford 19041 Computerized Instruments for Modernization of Integrated Laboratory and Research Course	Colin MacKay Chemistry	35000	8551573 85
Indiana Univ of PA Indiana 15701 IUP/ARIN Summer Science Institute	John W. Butzow Education	132408	8550224 85
Lafayette College Easton 18042 Automation and Computerization of Existing X-Ray Diffraction Equipment	Guy L. Hovis Geology	49340	8552030 85

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Lehigh University Bethlehem 18015 Graduate Fellowship Support Grant		34200	8550740 85
Lehigh University Bethlehem 18015 The Lehigh University Secondary School Mathematics and Science Chairperson's Academy	Fenwick W. English School of Education	157705	8550139 85
Lycoming College Williamsport 17701 Equipment for Teaching the Environmental Control of Photosynthesis to Undergraduates	Judith A. Pottmeyer Biology	7755	8552024 85
Mansfield University Mansfield 16933 Laboratory Equipment to Upgrade the Undergraduate Geography Program	Russell L. Dodson Geography	7100	8551721 85
Mansfield University Mansfield 16933 Chemistry for Children: A Workshop for Elementary School Teachers in Pre-College Chemistry	Arnold George Chemistry	115042	8550036 85
Metro Pitts Pub Brdcstg Pittsburgh 15213 Newsience	Danforth Fales Programming	250102	8550293 85
Pennsylvania State Univ University Park 16802 Graduate Fellowship Support Grant		171000	8550766 85
Pennsylvania State Univ University Park 16802 Renewal Institute in Microbiology and Related Societal Issues for Central Pennsylvania Biology Teachers	Peter A. Rubba Div of Curriculum & Inst	142431	8550207 85
Pennsylvania State Univ University Park 16802 Nuclear Concepts and Energy Resources Institute	Warren F. Witzig Nuclear Engineering	49695	8470284 85
Seton Hill College Greensburg 15601 Improvement of Science Instruction by Increased Student Use of Electronic Instruments	Bernadette R. Fondy Biology	25943	8551953 85

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Shippensburg Univ of PA Shippensburg 17257 Plan to Introduce Computer Interfacing into the Science Laboratory Curriculum	Thomas D. Schroeder Chemistry	10434	8551170 85
St Vincent College Latrobe 15650 Research Participation for Secondary School Science Teachers	Cynthia Walter Workshops	90000	8470167 85
Temple University Philadelphia 19122 Graduate Fellowship Support Grant		51300	8550783 85
Temple University Philadelphia 19122 Demonstration and Computer Workshop for Secondary School Physics Teachers	Donald E. Neville Physics	50510	8470640 85
Thiel College Greenville 16125 Improving Instruction in Modern Chromatography	D. Bruce Armitage Chemistry	7700	8551113 85
Univ of Pennsylvania Philadelphia 19104 Graduate Fellowship Support Grant		581400	8550767 85
Univ of Pitt-Johnstown Johnstown 15904 Automated Data Acquisition and Reduction System	Steven P. Capp Mechanical Eng & Tech	19350	8551185 85
Univ of Pittsburgh Pittsburgh 15260 Graduate Fellowship Support Grant		17100	8550768 85
Univ of Pittsburgh Pittsburgh 15260 Community of Scholars Institutes in the Natural Sciences and Engineering	Henry B. Cohen Mathematics	128580	8550031 85
Univ of Pittsburgh Pittsburgh 15260 Intelligent Tutors for Elementary and Middle School Mathematics	Lauren B. Resnick Learning Research & Devel	301406	8470339 85
Ursinus College Collegeville 19426 Scientific Instrumentation for the Chemistry Department	Victor J. Tortorelli Chemistry	34285	8551013 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
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PUERTO RICO

Col San Ignacio De Loyol Rio Piedras 00923 Presidential Award for Excellence in Science and Mathematics Teaching	Jose L. Garrido Mathematics	5000	N/A 83
Univ of P R Rio Piedras Rio Piedras 00931 Graduate Fellowship Support Grant		21800	8350099 83
Univ. of Puerto Rico H.S. Rio Piedras 00923 Presidential Award for Excellence in Science and Mathematics Teaching	Luis V Concepcion de Gasp Science	5000	N/A 83
Ana Roque High School Humacao 00661 Presidential Award for Excellence in Science and Mathematics Teaching	Luz P. Rivera Mathematics	5000	8470804 84
John F Kennedy H.S. Santa Isabel 00757 Presidential Award for Excellence in Science and Mathematics Teaching	Federico A. Acaron Science	5000	8470803 84
Univ of P R Rio Piedras Rio Piedras 00931 Graduate Fellowship Support Grant		50000	8450154 84
Efrain Sanchez Hidakgo Moca 00716 Presidential Award for Excellence in Science and Mathematics Teaching	Nilda E. Melendez Fontane Mathematics	5000	8554563 85
Escuela Sup Cecilio L R Patillas 00723 Presidential Award for Excellence in Science and Mathematics Teaching	Almodovar F. Rivera Science	5000	8554562 85
Int-Amer U Pr-San German San German 00753 Development of the Immunology and Industrial Microbiology Laboratory Programs	Edwin Montalvo Biology	49400	8552249 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of P R Rio Piedras Rio Piedras 00931 Graduate Fellowship Support Grant		34200	8550802 85
RHODE ISLAND			
John F. Deering J.H.S. Warwick 02886 Presidential Award for Excellence in Science and Mathematics Teaching	Marcelline A. Zambuco Mathematics	5000	N/A 83
North Providence H.S. Warwick 02886 Presidential Award for Excellence in Science and Mathematics Teaching	Mary C. Christian Science	5000	N/A 83
Univ of Rhode Island Kingston 02881 Graduate Fellowship Support Grant		4832	8264059 83
Univ of Rhode Island Kingston 02881 Graduate Fellowship Support Grant		10900	8350102 83
Brown University Providence 02912 Graduate Fellowship Support Grant		52000	8450036 84
Brown University Providence 02912 Experiments on Human Concepts	Gregory L. Murphy Psychology	109849	8315145 84
Lincoln Sr High School Lincoln 02865 Presidential Award for Excellence in Science and Mathematics Teaching	Leslie F. Bettencourt Science	5000	8470777 84
South Kingstown H.S. Wakefield 02879 Presidential Award for Excellence in Science and Mathematics Teaching	Sue H. Fisher Mathematics	5000	8470778 84
Univ of Rhode Island Kingston 02881 Graduate Fellowship Support Grant		26000	8450123 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Brown University Providence 02912 Graduate Fellowship Support Grant		48000	8550688 85
Cranston H.S. East Cranston 02910 Presidential Award for Excellence in Science and Mathematics Teaching	Janice A. Meegan Mathematics	5000	8554565 85
John F Deering Jr H.S. West Warwick 02893 Presidential Award for Excellence in Science and Mathematics Teaching	Eileen F. Ferrance Science	5000	8554564 85
Rhode Island College Providence 02908 Fluorescence Spectroscopy in the Chemistry Curriculum	James G. Magyar Physical Science	9792	8551264 85
Univ of Rhode Island Kingston 02881 Graduate Fellowship Support Grant		51300	8550772 85

SOUTH CAROLINA

Clemson University Clemson 29631 Graduate Fellowship Support Grant		10900	8350027 83
D. W. Daniel H.S. Clemson 29631 Presidential Award for Excellence in Science and Mathematics Teaching	Elizabeth L. Lashley Mathematics	5000	N/A 83
Dreher High School Columbia 29209 Presidential Award for Excellence in Science and Mathematics Teaching	Johanna O. Killoy Science	5000	N/A 83
Univ of S C at Columbia Columbia 29208 Graduate Fellowship Support Grant		2700	8350108 83
Clemson University Clemson 29631 Graduate Fellowship Support Grant		6312	8350027 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Clemson University Clemson 29631 Graduate Fellowship Support Grant		13000	8450055 84
College of Charleston Charleston 29401 Model Science Teacher Development in a "Feeder" School	Maggie T. Pennington Biology	168057	8470006 84
Eastside High School Taylors 29687 Presidential Award for Excellence in Science and Mathematics Teaching	Alexia B. Latimer Mathematics	5000	8470780 84
J.L. Mann High School Greenville 29607 Presidential Award for Excellence in Science and Mathematics Teaching	Elizabeth M. Reagan Science	5000	8470779 84
Univ of S C at Columbia Columbia 29208 Graduate Fellowship Support Grant		13000	8450129 84
Clemson University Clemson 29631 Graduate Fellowship Support Grant		1630	8550707 85
Clemson University Clemson 29631 Courseware Development and Computer Workshops for High School Biology Teachers	Robert Kosinski Biology	184022	8470055 85
Erskine Col & Seminary Due West 29639 Computer Interfacing for High School Teachers	Bright A. Lowry Chemistry and Physics	26643	8470636 85
Erskine Col & Seminary Due West 29639 Equipment for Advanced Microcomputer Interfacing	Bright A. Lowry Chemistry and Physics	5285	8551131 85
Furman University Greenville 29613 Equipment to Establish an Undergraduate Biopsychology Laboratory	John D. Batson Psychology	15052	8551997 85
Furman University Greenville 29613 Introduction of Mass Spectrometry into the Undergraduate Laboratory Program	Lon B. Knight, Jr. Chemistry	36018	8551199 85

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	Furman University	Greenville 29613	Kenneth A. Sargent	Geology	50000	8552313	85
	Improvement in Undergraduate Major Curriculum in Geology						
	Johnsonville High School	Johnsonville 29555	Marsha A. Carter	Mathematics	5000	8554567	85
	Presidential Award for Excellence in Science and Mathematics Teaching						
	Spring Valley H.S.	Columbia 29223	Caroline H. Bowers	Science	5000	8554566	85
	Presidential Award for Excellence in Science and Mathematics Teaching						
	Univ of S C at Columbia	Columbia 29208	Daniel J. Antion	Office of the Provost	475000	8470161	85
	South Carolina Cooperative Plan for the Professional Development of Science and Mathematics Teachers in Grades 7-12						
	Wofford College	Spartanburg 29301	Terry A. Ferguson	Geology	12515	8551956	85
	Application of Geographical Information Systems in Undergraduate Science Instruction						
SOUTH DAKOTA							
	Rapid City Central H.S.	Rapid City 57701	Gerald E. Loomer	Science	5000	N/A	83
	Presidential Award for Excellence in Science and Mathematics Teaching						
	S D Sch of Mines and Tech	Rapid City 57701			10900	8350109	83
	Graduate Fellowship Support Grant						
	Simmons Junior H.S.	Aberdeen 57401	James A. Nelson	Mathematics	5000	N/A	83
	Presidential Award for Excellence in Science and Mathematics Teaching						
	U of South Dakota	Vermillion 57007			10900	8350110	83
	Graduate Fellowship Support Grant						

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	Patrick Henry Jr H.S.	Sioux Falls 57105	Presidential Award for Excellence in Science and Mathematics Teaching	Marvin D. Selnes	Science	5000	8470781	84
	Plankinton High School	Plankinton 57368	Presidential Award for Excellence in Science and Mathematics Teaching	Rochelle VonEye	Mathematics	5000	8470782	84
	S D Sch of Mines and Tech	Rapid City 57701	Graduate Fellowship Support Grant			13000	8450127	84
	Augustana College	Sioux Falls 57102	Enhanced Laboratory Infrared Spectroanalytical, Computer Instrument Control, and Data Management Capabilities	Arlen E. Viste	Chemistry	24480	8551333	85
	Edison Junior H.S.	Sioux Falls 57102	Presidential Award for Excellence in Science and Mathematics Teaching	Kenneth W. Anderson	Mathematics	5000	8554569	85
	Northern State College	Aberdeen 57401	Improvement of Underprepared Mathematics and Science Teachers	William E. Haigh	Mathematics	56859	8550109	85
	S D Sch of Mines and Tech	Rapid City 57701	Graduate Fellowship Support Grant			17100	8550777	85
	Stevens High School	Rapid City 57702	Presidential Award for Excellence in Science and Mathematics Teaching	Roberta K. Gaines	Science	5000	8554568	85
TENNESSEE	Overton High School	Memphis 38119	Presidential Award for Excellence in Science and Mathematics Teaching	Nancy N. Gates	Mathematics	5000	N/A	83

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Tennessee St University Nashville 37203 Graduate Fellowship Support Grant		10900	8350122 83
University of Tennessee Knoxville 37916 Graduate Fellowship Support Grant		29510	8350094 83
Vanderbilt University Nashville 37235 Graduate Fellowship Support Grant		10900	8264026 83
Vanderbilt University Nashville 37235 Graduate Fellowship Support Grant		43600	8350133 83
Whitehaven High School Memphis 38119 Presidential Award for Excellence in Science and Mathematics Teaching	Josephine A. Bennett Science	5000	N/A 83
Bearden High School Knoxville 37919 Presidential Award for Excellence in Science and Mathematics Teaching	Polly A. Harris Mathematics	5000	8470784 84
Overton High School Memphis 38117 Presidential Award for Excellence in Science and Mathematics Teaching	Doris W. Hawkins Science	5000	8470783 84
Vanderbilt University Nashville 37235 Graduate Fellowship Support Grant		47100	8450142 84
Kingsport Cuty Schools Kingsport 37664 Pre-College Teacher Development in Science Program for Middle and High School Science Teachers	Jack Rhoton Science	16401	8550025 85
Smyrna High School Smyrna 37167 Presidential Award for Excellence in Science and Mathematics Teaching	Nancy C. Keese Mathematics	5000	8554571 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
The Baylor School Chattanooga 37401 Presidential Award for Excellence in Science and Mathematics Teaching	George O. Taylor, Jr. Science	5000	8554570 85
Univ of Tenn at Chatnga Chattanooga 37403 Upgrading of Modern Physics Laboratory Experiments	Randolph S. Peterson Physics	27482	8551914 85
Univ of Tenn at Martin Martin 38238 Microbiology and Cell Biology Laboratory Instructional Improvement	Carroll E. Slack Biological Sciences	6226	8551312 85
Vanderbilt University Nashville 37235 Graduate Fellowship Support Grant		12100	8550790 85

TEXAS

Alamo Heights H.S. San Antonio 78209 Presidential Award for Excellence in Science and Mathematics Teaching	Paul A. Foerster Mathematics	5000	N/A 83
Baylor Col of Medicine Houston 77030 Graduate Fellowship Support Grant		10900	8350052 83
Corpus Christi St Univ Corpus Christi 78412 Graduate Fellowship Support Grant		10900	8350034 83
Cy-Fair High School Houston 77043 Presidential Award for Excellence in Science and Mathematics Teaching	Janet A. Harris Science	5000	N/A 83
North Texas State Univ Denton 76203 Graduate Fellowship Support Grant		10900	8350084 83
Rice University Houston 77001 Graduate Fellowship Support Grant		118700	8350103 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Sam Houston St College Huntsville 76704 Graduate Fellowship Support Grant		10900	8350107 83
Southern Methodist Univ Dallas 75275 Graduate Fellowship Support Grant		10900	8350114 83
Sul Ross State College Alpine 79830 Graduate Fellowship Support Grant		10900	8350074 83
Texas A & M University College Station 77843 Graduate Fellowship Support Grant		21800	8350113 83
Texas Christian Univ Fort Worth 76129 Graduate Fellowship Support Grant		10900	8350123 83
Texas Tech University Lubbock 79409 Graduate Fellowship Support Grant		13600	8350124 83
U Tex Hlth Sc Ctr Dallas Dallas 75235 Graduate Fellowship Support Grant		21800	8350128 83
U Tex Med Brnch Galvest Galveston 77550 Graduate Fellowship Support Grant		10900	8350129 83
Univ of Texas-Arlington Arlington 76010 Graduate Fellowships Support Grant		10900	8350126 83
Univ of Texas-Austin Austin 78712 Graduate Fellowship Support Grant		10900	8264032 83
Univ of Texas-Austin Austin 78712 Graduate Fellowship Support Grant		91070	8350127 83
Baylor Col of Medicine Houston 77030 Graduate Fellowship Support Grant		26000	8450033 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Corpus Christi St Univ Corpus Christi 78412 Graduate Fellowship Support Grant		13000	8450025 84
John Jay High School San Antonio 78227 Presidential Award for Excellence in Science and Mathematics Teaching	Marjorie Valentine Mathematics	5000	8470786 84
North Texas St Univ Denton 76203 Graduate Fellowship Support Grant		13000	8450109 84
Rice University Houston 77001 Graduate Fellowship Support Grant		91000	8450124 84
Southern Methodist Univ Dallas 75275 Graduate Fellowship Support Grant		26000	8450130 84
Stratford High School Houston 77079 Presidential Award for Excellence in Science and Mathematics Teaching	Linda J. Oldham Science	5000	8470785 84
Texas A & M University College Station 77843 Graduate Fellowship Support Grant		52000	8450136 84
Texas A & M University College Station 77843 Honors Workshop for Texas Elementary School Teachers of Science	Delmar L. Janke Educational Curriculum an	82439	8318223 84
Texas Christian Univ Fort Worth 76129 Graduate Fellowship Support Grant		26000	8450137 84
Texas Tech University Lubbock 79409 Graduate Fellowship Support Grant		13000	8450138 84
Univ of Houst-Univ Pk Houston 77004 Graduate Fellowship Support Grant		26000	8450076 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Houst-Univ Pk Houston 77004 Molecular Biology For Secondary Science Teachers	David L. Jameson Biology	177933	8320290 84
Univ of Texas-Austin Austin 78712 Graduate Fellowship Support Grant		325000	8450139 84
Univ of Texas-Austin Austin 78712 Representation and Query Logic for a Text Knowledge System (Information Science)	Robert F. Simmons Computer Sciences	124231	8403028 84
Univ of Texas-El Paso El Paso 79902 Local and Regional Teacher Development Project in Mathematics for Elementary School Teachers	Norma G. Hernandez Curriculum & Instruction	45932	8470008 84
Univ of Texas-San Anton San Antonio 78285 Honors Workshops for Improving Mathematics Education	Betty Travis Automation & Data Systems	131136	8400500 84
Baylor Col of Medicine Houston 77030 Graduate Fellowship Support Grant		51300	8550685 85
Baylor Col of Medicine Houston 77030 Teacher Development Model Conducted Through the Houston Mathematics & Science Improvement Consortium (HMSIC)	Robert E. Roush Div of Allied Health Sci	753948	8319912 85
Brazoswood High School Freeport 77541 Presidential Award for Excellence in Science and Mathematics Teaching	Donna M. Jablecki Science	5000	8554572 85
Corpus Christi St Univ Corpus Christi 78412 Graduate Fellowship Support Grant		17100	8550715 85
Midwestern State Univ Wichita Falls 76308 Upgrading the Chemical Separations Portion of the Laboratory Program	Robert J. Palma Chemistry	9258	8552238 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
North Texas State Univ Denton 76203 Leadership Science Workshop for Elementary Teachers	H. Dale Luttrell Elementary Education	52857	8550476 85
Our Lady Lake University San Antonio 78285 Acquisition of Light Microscopes for Advanced Biology Laboratories	James S. Hall Biology	5069	8552330 85
Rice University Houston 77001 Graduate Fellowship Support Grant		153900	8550773 85
Sam Houston State Univ Huntsville 77341 Improving Undergraduate Chemical Instruction with Nuclear Magnetic Resonance Experiments	Rick C. White Chemistry	27745	8551042 85
Southern Methodist Univ Dallas 75275 Graduate Fellowship Support Grant		17100	8550780 85
Southern Methodist Univ Dallas 75275 Software Development for Mathematics Teachers	David Y. Yun Computer Science & Eng	198495	8470017 85
St Mark's School of Tx Dallas 75230 Presidential Award for Excellence in Science and Mathematics Teaching	Judith T. Sutcliffe Mathematics	5000	8554573 85
Texas A & M University College Station 77843 Graduate Fellowship Support Grant		46500	8550784 85
Texas A & M University College Station 77843 Honors Workshop for Texas Elementary School Teachers of Science	Delmar L. Janke Curriculum & Instruction	106110	8470598 85
Texas A & M University College Station 77843 Texas Regional Earth Science Teacher Development	Melvin C. Schroeder Geology	151336	8470452 85
Texas Christian Univ Fort Worth 76129 Graduate Fellowship Support Grant		15780	8550785 85

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Trinity University San Antonio 78284 Research as Chemical Education	Michael P. Doyle Chemistry	44700	8550235 85
U Tex Hlth Sc Ctr Dallas Dallas 75235 Graduate Fellowship Support Grant		17100	8550787 85
Univ of Houst-Univ Pk Houston 77004 Graduate Fellowship Support Grant		34200	8550727 85
Univ of Houst-Univ Pk Houston 77004 A Laboratory Based Program to Improve and Update the Teaching of Major Topics in Physical Science	Eugene L. Chiappetta Curriculum & Instruction	160807	8470550 85
Univ of Houst-Univ Pk Houston 77004 Improving Instruction in the High School Physical Science Course	H. T. Hudson Physics	186879	8470565 85
Univ of Texas-Austin Austin 78712 Graduate Fellowship Support Grant		427500	8550786 85
Univ of Texas-Austin Austin 78712 Workshop for Nascent Authors of Computer-Based Materials for High School Chemistry	Joseph J. Lagowski Chemistry	43071	8470575 85

UTAH

Bonneville High School Ogden 84404 Presidential Award for Excellence in Science and Mathematics Teaching	Carl L. Bruce Science	5000	N/A 83
Brigham Young University Provo 84602 Graduate Fellowship Support Grant		10900	8350007 83
Evergreen Junior H.S. Murray 84107 Presidential Award for Excellence in Science and Mathematics Teaching	Jacqueline M. Stonebraker Mathematics	5000	N/A 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
University of Utah Salt Lake City 84112 Graduate Fellowship Support Grant		13600	8350132 83
Utah State University Logan 84322 Graduate Fellowship Support Grant		10900	8350131 83
Bennion Jr High School Bennion 84118 Presidential Award for Excellence in Science and Mathematics Teaching	Jolene M. Morris Mathematics	5000	8470788 84
Brigham Young University Provo 84602 Graduate Fellowship Support Grant		20175	8450035 84
Davis High School Kaysville 84037 Presidential Award for Excellence in Science and Mathematics Teaching	M. Russell Hunt, Jr. Science	5000	8470787 84
University of Utah Salt Lake City 84112 Graduate Fellowship Support Grant		26600	8450141 84
Utah State University Logan 84322 Graduate Fellowship Support Grant		13000	8450027 84
Brigham Young University Provo 84602 Graduate Fellowship Support Grant		61230	8550687 85
Dixie High School Saint George 84770 Presidential Award for Excellence in Science and Mathematics Teaching	John F. Heppler Science	5000	8554574 85
Monticello High School Monticello 84535 Presidential Award for Excellence in Science and Mathematics Teaching	Doyle B. Rowley Mathematics	5000	8554575 85
University of Utah Salt Lake City 84112 Graduate Fellowship Support Grant		13390	8550789 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
University of Utah Salt Lake City 84112 A Program to Train, Update, and Retain High School Teachers of Science, Mathematics and Computer Usage	Haven E. Bergeson Physics & Mathematics	307250	8317071 85
Utah State University Logan 84322 Graduate Fellowship Support Grant		17100	8550788 85
Weber State College Ogden 84408 Acquisition of an X-Ray Diffractometer for Geology/Chemistry Curriculum Improvement	James R. Wilson Geology	23150	8551200 85
Weber State College Ogden 84408 Radiotelegraphic, Optical and Computer Equipment for a Behavioral Ecology Field and Laboratory Program	Samuel I. Zeveloff Zoology	27940	8552204 85
VERMONT			
Burlington High School Burlington 05401 Presidential Award for Excellence in Science and Mathematics Teaching	Judith L. Allard Science	5000	N/A 83
Hazen Union High School Hardwick 05843 Presidential Award for Excellence in Science and Mathematics Teaching	Jean C. Hackett Mathematics	5000	N/A 83
University of Vermont Burlington 05401 Graduate Fellowship Support Grant		21800	8350134 83
Colchester High School Colchester 05446 Presidential Award for Excellence in Science and Mathematics Teaching	Elizabeth A. Carvellas Science	5000	8470789 84
Rutland High School Rutland 05701 Presidential Award for Excellence in Science and Mathematics Teaching	M. Marklyn Trainor Mathematics	5000	8470790 84

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Champlain Valley H.S. Hinesburg 05461 Presidential Award for Excellence in Science and Mathematics Teaching	David S. Ely Science	5000	8554576 85
Middlebury College Middlebury 05753 A Laser Spectroscopy System for Advanced Undergraduate Laboratories	Jeffrey S. Dunham Physics	27985	8551496 85
Middlebury College Middlebury 05753 Improvement of Laboratory Instruction in Biology	Christopher D. Watters Biology	35874	8551282 85
Norwich University Northfield 05663 Equipment to Outfit A Conditioning Laboratory for Undergraduate Students of Psychology	J. Gregor Fetterman Psychology	11734	8551930 85
Rutland High School Rutland 05701 Presidential Award for Excellence in Science and Mathematics Teaching	Roberta K. Fillioe Mathematics	5000	8554577 85
St Michael's College Winooski 05404 Replacement of Obsolete Equipment in Undergraduate Laboratories	Gilbert L. Grady Chemistry	7495	8552044 85
University of Vermont Burlington 05401 Graduate Fellowship Support Grant		16530	8550791 85

VIRGINIA

Hampton High School Hampton 23669 Presidential Award for Excellence in Science and Mathematics Teaching	Joyce A. Richardson Weeks Mathematics	5000	N/A 83
I.C. Norcom H.S. Chesapeake 23669 Presidential Award for Excellence in Science and Mathematics Teaching	Edna H. Corbett Science	5000	N/A 83

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University of Virginia Charlottesville 22903 Graduate Fellowship Support Grant		21800	8350136 83
Virginia Polytechnic Ins Blacksburg 24061 Graduate Fellowship Support Grant		98100	8350135 83
Chespke Res Consrtium Gloucester Poin 23061 Community-Based Science Education	John H. Falk Education	87700	8318224 84
N B Clements Jr H.S. Prince George 23875 Presidential Award for Excellence in Science and Mathematics Teaching	Betty W. Jones Science	5000	8470791 84
St Catherine's School Richmond 23226 Presidential Award for Excellence in Science and Mathematics Teaching	Barbara D. Bass Mathematics	5000	8470792 84
The Adm H G Rickover Fdn McLean 22102 The Rickover Science Institute	William T. Stuart Rickover Science Inst	133346	8470423 84
University of Virginia Charlottesville 22903 Graduate Fellowship Support Grant		65000	8450145 84
Virginia Polytechnic Inst Blacksburg 24061 Graduate Fellowship Support Grant		52000	8450144 84
Amer Geological Inst Alexandria 22302 Conference of Earth Scientists to Plan Improvements in Pre-college Science Education	Andrew J. Verdon, Jr. Education	34540	8470494 85
Ferrum College Ferrum 24088 Reorientation of the Ferrum College Environmental Studies Program through Acquisition of Laboratory Instrumentation	John W. Leffler Life Sciences	28200	8551877 85
Hampden-Sydney College Hampden Sydney 23943 Modern Instrumentation for a Project-Based Laboratory Program	Herbert J. Sipe, Jr. Chemistry	41800	8551094 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
James Madison Univ Harrisonburg 22807 Gravity Meter Geophysical Equipment Acquisition	John E. Sander Geology & Geography	6450	8551070 85
John Handley High School Winchester 22601 Presidential Award for Excellence in Science and Mathematics Teaching	David H. Pleacher Mathematics	5000	8554579 85
Maury High School Norfolk 23517 Presidential Award for Excellence in Science and Mathematics Teaching	Donald R. Cottingham, Sr. Science	5000	8554578 85
Nat Coun Tchrs of Math Reston 22091 Computers in Mathematics Classrooms	Len Pikaart College of Education	332711	8470369 85
Omega World Travel Baileys Cross R22041 Travel and Administrative Services in Support of International Science Activities Sponsored By the National Science Foundation	Gloria Bohan	297000	8316587 85
Radford University Radford 24142 The Addition of NMR Techniques to the Chemistry Curriculum	Robert K. Boggess Chemistry	30400	8551905 85
SRI Intl Strt Studies Ct Arlington 22209 Soviet Precollege Education in Science and Mathematics: A Comparison with the United States	Catherine P. Ailes Strategic Studies Center	168202	8550158 85
Sci Mus Assn Roanoke Vllly Roanoke 24011 The Downprinting of Selected Imax/Omnimax Films to a 35mm Format	Thomas H. Krakauer Museum Director	64495	8550251 85
Univ of Richmond Richmond 23173 Polarography in the Undergraduate Chemistry Program	Stuart C. Clough Chemistry	7862	8552217 85
University of Virginia Charlottesville 22903 Graduate Fellowship Support Grant		205200	8550793 85

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	Va Military Inst	Lexington 24450	Honors Workshop - Demonstrations for Physics and Math	D. Rae Carpenter, Jr.	Physics	192603	8470455	85
	Virginia Polytechnic Inst	Blacksburg 24061	Graduate Fellowship Support Grant			33050	8550792	85
WASHINGTON								
	Lincoln H.S.	Tacoma 98466	Presidential Award for Excellence in Science and Mathematics Teaching	Thomas F. Sedgwick	Mathematics	5000	N/A	83
	Shorewood H.S.	Issaquah 98027	Presidential Award for Excellence in Science and Mathematics Teaching	Barbara Schutz	Science	5000	N/A	83
	University of Washington	Seattle 98195	Graduate Fellowship Support Grant			120000	8350139	83
	Clover Park H.S.	Tacoma 98499	Presidential Award for Excellence in Science and Mathematics Teaching	Jack Dombrosky	Science	5000	8470793	84
	Kamiakin Jr H.S.	Kirkland 98034	Presidential Award for Excellence in Science and Mathematics Teaching	Reg Waddoups	Mathematics	5000	8470794	84
	University of Washington	Seattle 98195	Graduate Fellowship Support Grant			429000	8450148	84
	University of Washington	Seattle 98195	Washington Precollege Engineering Project: A Model for the Involvement of Minority Students in Science and Engineering	Thomas G. Stoebe	Materials Science and Eng	277714	8317064	84
	University of Washington	Seattle 98195	Applying the Results of Physics Education Research to Teacher Preparation: Development of Instructional Materials and a Model Program	Emily H. van Zee	Physics	820320	8470081	84

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Washington State Univ Pullman 99164 Graduate Fellowship Support Grant		6050	8450003 84
Washington State Univ Pullman 99164 Graduate Fellowship Support Grant		39000	8450147 84
Eastern Washington Univ Cheney 99004 Project Skywatch	Robert E. Gibbs Physics	206015	8550124 85
Evergreen State College Olympia 98505 Laboratory Computing in Interdisciplinary Science Programs	Frederick D. Tabbutt Physical Science	50000	8552019 85
Gonzaga Univ Spokane 99258 Instrumentation for Improving Undergraduate Cellular and Molecular Biology Laboratories	Robert D. Prusch Life Sciences	21830	8551274 85
Mercer Island H.S. Mercer Island 98040 Presidential Award for Excellence in Science and Mathematics Teaching	James A. Minstrell Science	5000	8554580 85
Pacific Lutheran Univ Tacoma 98447 Equipment to Teach Archaeological Experimentation: Improving the Science in Social Science	Judith Rasson Anthropology	6669	8552240 85
Seattle University Seattle 98122 Equipment for Improving Undergraduate Laboratory Work in Cellular and Molecular Biology	Daniel B. Matlock Biology	34147	8552176 85
Shoreline High School Seattle 98155 Presidential Award for Excellence in Science and Mathematics Teaching	Barbara P. Chamberlain Mathematics	5000	8554581 85
St Martin's College Lacey 98503 Elements of Chemistry for Middle and Junior High School Teachers: A Local and Regional Teacher Development Project	Angela Hoffman Chemistry & Education	35068	8400348 85

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University of Washington Seattle 98195 Graduate Fellowship Support Grant		718200	8550796 85
Washington State Univ Pullman 99164 Graduate Fellowship Support Grant		51300	8550795 85
Washington State Univ Pullman 99164 A Model to Improve Preservice Elementary Science Teacher Development	Julie H. Lutz Astronomy	142273	8470609 85
Washington State Univ Pullman 99164 A Trainers' Project for Science for Handicapped Students	Donald C. Orlich Education	61434	8470642 85
Washington State Univ Pullman 99164 Secondary School Mathematics Modules in the Social Sciences	Jack M. Robertson Mathematics	85033	8550106 85
Western Washington Univ Bellingham 98225 Improvement of Undergraduate Biochemistry Laboratory Curriculum	Geraldine A. Prody Chemistry	28337	8551599 85
Whitman College Walla Walla 99362 Purchase of A Scanning Electron Microscope and Energy Dispersive Spectrometer for A Multidepartmental Undergraduate Laboratory	John K. Winter Geology	50000	8552326 85
Whitworth College Spokane 99251 A General Physics Laboratory Emphasizing Measurement Proficiency	Lois M. Kieffaber Physics/Geology	30500	8551516 85
 WEST VIRGINIA			
Parkersburg South H.S. Parkersburg 26101 Presidential Award for Excellence in Science and Mathematics Teaching	Robert E. Phipps Science	5000	N/A 83

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
West Virginia University Morgantown 26506 Graduate Fellowship Support Grant		10900	8350141 83
Winfield H.S. Scott Depot 25560 Presidential Award for Excellence in Science and Mathematics Teaching	Ava F. Crum Mathematics	5000	N/A 83
Poca H.S. Poca 25159 Presidential Award for Excellence in Science and Mathematics Teaching	James A. McClanahan Science	5000	8470795 84
St Albans H.S. Saint Albans 25177 Presidential Award for Excellence in Science and Mathematics Teaching	Dorothy D. Williamson Mathematics	5000	8470796 84
Keyser Primary/Middle Sc Keyser 26726 Presidential Award for Excellence in Science and Mathematics Teaching	Joan M. Nofsinger Mathematics	5000	8554583 85
Marshall University Huntington 25701 Multiplex and Multichannel Data Acquisition Instrumentation for Advanced Analytical Chemistry	George E. Cabaniss Chemistry	38422	8551611 85
Mount View High School Welch 24801 Presidential Award for Excellence in Science and Mathematics Teaching	Jessie P. Roberts Science	5000	8554582 85
West Liberty St Col West Liberty 26074 Computerized Spectrophotometer Project	Robert H. Fish Chemistry	6944	8552261 85
West Va Inst of Tech Montgomery 25136 Instrumentation for Computer Control of Chemical Processes	Shakuntala Ghare Chemical Engineering	19211	8551087 85
West Va Wesleyan College Buckhannon 26201 Microcomputer-Moderated Environmentally Controlled Growth Chambers for Undergraduate Biology Laboratories	Katharine B. Gregg Biology	10080	8551470 85

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West Virginia University Morgantown 26506 Empirical Investigation of Difficulties in Understanding Optics, Kinematics, and Heat and Temperature Among Pre-College Teachers	Fred M. Goldberg Physics	176700	8470449 85
WISCONSIN			
Nicolet High School Milwaukee 53217 Presidential Award for Excellence in Science and Mathematics Teaching	David R. Johnson Mathematics	5000	N/A 83
Shattuck Jr High School Neenah 54956 Presidential Award for Excellence in Science and Mathematics Teaching	Edward M. Mueller Science	5000	83
Univ of Wis-Madison Madison 53706 Graduate Fellowship Support Grant		196200	8350143 83
James Madison Mem H.S. Madison 53717 Presidential Award for Excellence in Science and Mathematics Teaching	Marilyn F. Hanson Science	5000	8470797 84
Univ of Wis-La Crosse La Crosse 54601 Local and Regional Teacher Development - An Update and Renewal of Earth Science Instruction in the Schools	Ronald A. Weinkauff Geography & Earth Science	39964	8470335 84
Univ of Wis-Madison Madison 53706 Graduate Fellowship Support Grant		533000	8450150 84
Univ of Wis-Madison Madison 53706 Enhancing Interactive Teaching and Learning in the Precollege Classroom (Chemistry)	Phillip R. Certain Chemistry	459194	8470162 84
Univ of Wis-Milwaukee Milwaukee 53201 Revitalizing Mathematics Teaching with History	Robert L. Hall Mathematics	76572	8470243 84

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Wis-Stevens Pnt Stevens Point 54481 Local and Regional Teacher Development Project on the Use of Visualization in Chemistry Instruction	Steven M. Wright Chemistry	20449	8470293 84
Wauwatosa West H.S. Wauwatosa 43222 Presidential Award for Excellence in Science and Mathematics Teaching	LeRoy C. Dalton Mathematics	5000	8470798 84
Beloit College Beloit 53511 Interactive Computer Simulation and Data Acquisition in Undergraduate Physics	David A. Dobson	30403	8552154 85
Beloit College Beloit 53511 Energy Dispersive Spectrometry and Digital Imagery for Undergraduate Research,	Richard C. Stenstrom Geology	29730	8551310 85
Edgewood College Madison 53711 Improving the Analytical Components of Undergraduate Laboratory Instruction in Chemistry	Philip K. Welty Physical Science	8571	8551980 85
Lawrence University Appleton 54912 Microcomputer Lab for Advanced Computing Students	Thomas L. Naps Mathematics	14830	8551263 85
Marquette University Milwaukee 53233 Graduate Fellowship Support Grant		17100	8550742 85
Milwaukee Public Museum Milwaukee 53201 Innovative Museum Biology Exhibit to Encourage Informal Learning on the Interrelatedness of all Life-Forms Including Humankind	Allen M. Young Invertebrate Zoology	228868	8470568 85
Milwaukee Sch of Eng Milwaukee 53201 Biomedical Engineering Laboratory Improvement	Vincent R. Canino EECS	18340	8551660 85
Milwaukee Sch of Eng Milwaukee 53201 Analysis and Display Equipment for an X-ray Emission Analyzer	Ronald A. Kobiske Physics	11100	8551663 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Ripon College Ripon 54971 Improvement of Nuclear Magnetic Resonance Instrumentation and Laboratory Instruction	Richard G. Scamehorn Chemistry	26100	8551229 85
Spring Valley H.S. Spring Valley 54767 Presidential Award for Excellence in Science and Mathematics Teaching	Jeanne M. Lundquist Science	5000	8554584 85
Univ of Wis-Eau Claire Eau Claire 54701 Local and Regional Teacher Development Project in Current Industrial Chemistry	Philip J. Chenier Chemistry	19223	8318164 85
Univ of Wis-Eau Claire Eau Claire 54701 Fluorescence Spectroscopy to Enhance Chemical Education	Jerome L. Mullin Chemistry	9187	8551028 85
Univ of Wis-Eau Claire Eau Claire 54701 A Central Computer for the Computer Science Department	David A. Nuesse Computer Science	50000	8551044 85
Univ of Wis-Eau Claire Eau Claire 54701 Summer Workshop for High School Teachers of Physics	Sumner T. Scott Physics and Astronomy	50006	8470530 85
Univ of Wis-Madison Madison 53706 Graduate Fellowship Support Grant		615600	8550798 85
Univ of Wis-Madison Madison 53706 Studies of the Application of Cognitive and Instructional Science to Mathematics Instruction	Elizabeth Fennema Curriculum/Instruction	231843	8550236 85
Univ of Wis-Madison Madison 53706 Enhancing Interactive Teaching and Learning in the Pre- college Classroom, 1985	William T. Lippincott Chemistry	862409	8470670 85
Univ of Wis-Madison Madison 53706 Engineering and Technology Enrichment Program for High School Math and Science Teachers	George M. Maxwell Engineering	35000	8550055 85

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STATE INSTITUTION CITY, ZIP AWARD TITLE	PROJECT DIRECTOR DEPARTMENT	AWARD AMOUNT	GRANT NUMBER FISCAL YEAR
Univ of Wis-Madison Madison 53706 The Establishment of a School Mathematics Monitoring Center	Thomas A. Romberg Curriculum and Instruct	231296	8550193 85
Univ of Wis-Madison Madison 53706 Problem Solving in High School Genetics: Microcomputers And Realistic Problems	James H. Stewart Curriculum & Instruction	130901	8470277 85
Univ of Wis-Parkside Kenosha 53140 Computer Graphics Laboratory for Engineering and Cartography	Dennis R. Stevenson Engineering Technology	50000	8551948 85
Univ of Wis-River Falls River Falls 54022 The Addition of Mass Spectroscopy Interfaced with Gas Chromatography into the Chemistry Curriculum	David P. Rainville Chemistry	36210	8551102 85
Univ of Wis-Stout Menomonie 54751 Fourier Transform Infrared Capability Improves Courses in Instrumental Methods, Materials and Environmental Chemistry	William J. Mueller Chemistry	17300	8551232 85
Univ of Wis-Whitewater Whitewater 53190 Equipment for a Computing Laboratory in Sociology and Political Science	W. Lawrence Neuman Sociology	11171	8551945 85
Viterbo College La Crosse 54601 Introduction of State-of-the-Art Ultraviolet-Visible Spectroscopy into the Chemistry Curriculum	Mary C. Hassinger Chemistry	11290	8551378 85
Whitnall High School Greenfield 53228 Presidential Award for Excellence in Science and Mathematics Teaching	Gail F. Burrill Mathematics	5000	8554585 85
Wis Ed Communication Bd Madison 53713 The Secondary Grades Science/Technology/Society Project	Thomas DeRose Educative Services	150000	8470355 85

WYOMING

Big Horn Jr-Sr H.S. Sheridan 82801 Presidential Award for Excellence in Science and Mathematics Teaching	Elizabeth B. Shelton Science	5000	N/A 83
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Sundance Jr-Sr H S Sundance 82729 Presidential Award for Excellence in Science and Mathematics Teaching	Bernie R. Schnorenberg Mathematics	5000	83
Kelly Walsh H.S. Casper 82609 Presidential Award for Excellence in Science and Mathematics Teaching	Elizabeth A. Horsch Science	5000	8470799 84
Laramie Jr H.S. Laramie 82070 Presidential Award for Excellence in Science and Mathematics Teaching	Judy Adams Mathematics	5000	8470800 84
McCormick Junior H.S. Cheyenne 82001 Presidential Award for Excellence in Science and Mathematics Teaching	Michael G. Pearson Science	5000	8554586 85
Twin Spruce Junior H.S. Gillette 82716 Presidential Award for Excellence in Science and Mathematics Teaching	Edward L. Weber Mathematics	5000	8554587 85
University of Wyoming Laramie 82071 Graduate Fellowship Support Grant		17100	8550799 85